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ORIGINAL DEPARTMENT.

LECTURE.

CLINICAL CASES.

BY WILLIAM HENRY DRAPER, M.D.,

Professor of Clinical Medicine in the College of Physicians and Surgeons, New York City.

Gastric Ulcer.

GENTLEMEN:—This case is one of interest, and I am very glad indeed to show it to you, because it is a perfectly typical illustration of the disease from which the patient is suffering. The case is one of gastric ulcer. Gastric ulcer is not a very common disease. The point to which I wish particularly to call your attention in her history is the history of dyspepsia. A dyspepsia depending upon a subacute gastric catarrh. She has for seven years suffered from occasional nausea, vomiting, regurgitation of sour fluids into the mouth, sour and foul taste in the mouth, eructations and flatulency, all of which are symptoms of a kind of dyspepsia which depends upon a catarrhal lesion of the lining membrane of the stomach. I wish you to note this because it is commonly out of a condition like this, out of a gastric catarrh, that you will get ultimately, in many instances, ulcers of the mucous membrane of the stomach. There are divergent views in regard to the immediate cause of ulcer of the stomach, but the only one to which I will allude now, which it is important to allude to in connection with the clinical history of this disease, is that which holds that it is dependent upon the digestion of certain tracts of the gastric mucous membrane in consequence of the withdrawal of the circulation from those tracts. This withdrawal of the circulation is supposed to be accomplished through a throm-

bosis or an embolism of the ramifications of the gastric artery. A consequence of the withdrawal of the circulation from these patches in the stomach is, that they become exposed to the destructive action of the secretions of the stomach. You can readily understand how this accident is more likely to occur in a congested and catarrhal condition of the mucous membrane than in the perfectly healthy condition, though it is possible that a gastric ulcer may form suddenly and unexpectedly in a stomach which has not been the seat of gastric catarrh, in consequence of one of those accidents to the circulation to which we, under certain circumstances, are liable.

In connection with a gastric catarrh from which she suffered, the urine was frequently dark and thick. That is by no means an uncommon symptom in the history of this form of dyspepsia.

We come now to the history of her present attack. On the first of this month, on waking, the patient complained of *malaise* and complete anorexia. A little later she fainted. Shortly after this, on going up stairs, she fainted again. Now, these attacks of syncope were perhaps simply the result of want of food, but more likely the result of a small hemorrhage, which did not manifest itself by hæmatemesis, but the evidence of which might have been found in the discharges from the bowel. It was not long, however, before the evidence of gastric hemorrhage was sufficiently noticable. Two days later the patient suddenly felt weak again, and vomited considerable blood of dark hue, mixed with food.

The hemorrhages which occur under these

circumstances are sometimes very large. If it happens that a vessel of considerable size is opened in one of these ulcers you may get a very large hemorrhage, and the hemorrhage is accompanied usually by a well marked tendency to syncope, and by the vomiting of large masses of dark clotted blood changed by the secretions of the stomach. Occasionally, when the hemorrhage is excessive, you may get bright blood from the stomach, but the source of blood from the stomach can generally be ascertained by its dark hue and mixing of grumous matter, food, with the blood.

The patient remained quietly in bed until last Saturday, when she had a more severe attack of hæmatemesis; since then there has been no hemorrhage.

Now we come to mention another symptom which exists throughout the history, which may exist with a catarrh, and which ordinarily precedes it, and which very often is distressing; I mean pain. She had suffered pain some time before this hemorrhage. It would come and go. It would come almost immediately after eating. That is the history which these patients frequently give; that it is a pain that is paroxysmal, the paroxysms, however, very commonly started by the ingestion of food or fluid. And this pain, as I said, is sometimes extremely severe. It is commonly located in the epigastrium, and the patients will complain of pain in the back. It is a boring pain, and a pain that is aggravated oftentimes, or started, by the ingestion of food. With this pain she also had a good deal of flatulency. Flatulency is a symptom that is usually developed in its most severe degree two or three hours after the ingestion of food, and not immediately after. She also had what is not at all uncommon in connection with pain and flatulence, and distention, a great deal of cardiac palpitation. This is one of the most common of the reflex symptoms of gastric catarrh. It is not necessarily associated with ulcer, but is very frequently associated with ulcer, because ulcer is so commonly associated with a catarrhal condition. It is also noted here that the movements of the bowels following the first hemorrhage were dark and black and bloody. This is a clinical fact that is also often noticed in the history of hæmatemesis, and I have no doubt that many of her first fainting attacks unaccompanied by hæmatemesis were due to hemorrhage, evidence of which might have been found in the presence of blood in the stools.

Now this history gives you a very fair, I might say a typical illustration of the evidences of gas-

tric catarrh leading to ulcer of the stomach. You may ask whether it is possible to diagnose ulcer of the stomach where there has been no hemorrhage, the result of the opening of a vessel in the ulcer. I think it is extremely difficult. I think it is very difficult to determine absolutely that you have ulceration of the stomach unless an accident of this sort has occurred. If, however, you have a case in which the pain is paroxysmal, as it is here, in which the pain is aggravated by the ingestion of anything in the way of food or drink, if it is boring in character, if there is tenderness on pressure over the epigastric region, I think it is pretty safe to suspect very strongly the presence of ulcer. And yet, all the symptoms which I have mentioned may exist with a history of gastric catarrh. So that the diagnosis with absolute certainty of gastric ulcer where there has been no hemorrhage, and where there has been no evidence of perforation, is, in the majority of cases, impossible.

The prognosis in this case, you will judge from what I have said, affects certain accidents which are important in their results. If you have an ulcer of the stomach, there are the chances of the opening of a vessel of greater or less magnitude, and perforation, and consequently of peritonitis. This perforation of which I speak may possible lead into another part of the alimentary canal, but in the majority of instances into the peritoneum. The accidents which I have mentioned are sufficiently grave to make this disease one which should arrest your attention and lead to your best consideration in the treatment.

Now, what can be done in these cases? Much can be done to protect the patient from suffering, and also to bring about the healing of the ulcer. Various methods have been suggested in the treatment of this disease, but the principle which has found most favor within the last few years is that of rest. This is secured by relieving the stomach of all duty in the process of nutrition, by resorting to rectal alimentation, so that the stomach shall be absolutely at rest. This principle, if it can be applied, is certainly one which will give the patient the greatest amount of comfort, and I believe the very best chances of recovery. The principle of rest, gentlemen, is a very important one to consider in the management of many diseases, and it should be considered in relation to a department in which, I regret to say, it does not seem to have obtained sufficient attention, that is, in surgery. The principle of rest in the treatment of disease generally is very frequently ignored. The application of this principle in the treatment of

ulcer of the stomach is, as you can see, a perfectly rational one. You have an ulcer which is irritable, which is painful, and which is constantly aggravated by the introduction of food and the consequent secretion of digestive fluids, and every time you put food into the stomach and arouse the organ into activity you give the patient great pain. You place the ulcer under conditions which necessarily increase it in extent, and you increase the chances of the accidents which your patient is constantly liable to meet with.

Now, is it possible to give the stomach rest? Recent investigations in the application of rectal alimentation as a substitute for gastric digestion would seem to show that the rectum is capable of doing to a certain extent the work of the stomach. At all events, you can bring certain kinds of food into contact with a very considerable tract of vascular mucous membrane, from which absorption of certain elements of food can be secured. There is considerable question among authorities as to whether the rectum is capable of digesting the albuminoids, and the enthusiastic advocates of rectal alimentation say that it is not necessary that they should be digested; that if you will use blood, for example, defibrinized, the blood-vessels will take up the blood corpuscles, they will swallow them whole and carry them into the circulation. The same enthusiastic advocates of rectal alimentation say that the mucous membrane will take up milk globules, or any other emulsionized fat. It is pretty certain that it will take up water, and that it will take up the salts in it; but, after all, the fact that a patient may be sustained for several weeks on food that is introduced into the rectum is the striking fact, and the one which justifies us in this kind of feeding, no matter what we may think as to special digestive powers of the rectum. That patients can be sustained in this way has been demonstrated over and over again. Therefore, I believe that we should continue to do it, and not allow our theoretical objections to influence us in the application of this kind of feeding. There are a great many cases of gastric ulcer on record which have been treated in this way and treated successfully. The usual result is that from the time that this treatment is inaugurated the patients cease to complain of pain and feel very much more comfortable than they had felt for a long time before they resorted to the treatment. They do not emaciate; they often retain their weight, and even gain in weight. Now, I have said that this is the case in those patients in whom this treatment is *applicable*. It so happens that it is *not always ap-*

pli-able. It sometimes happens that in these cases we are not able to carry out rectal alimentation, not even by using opium in connection with the injections, as is commonly done, in order to make more sure of their being retained. This patient does not retain them. They are rejected, and we have been obliged to give this kind of treatment up. But ordinarily, in the majority of cases I think I may say, you can inject four or five ounces of milk, of defibrinized blood, of concentrated beef tea, with or without a few drops of laudanum, as often as once in four or five hours, and it will be retained.

Supposing you are not able to resort to rectal alimentation; then you have to feed the patient by the stomach and you have to choose for your food something most bland, unirritating. For this purpose there is nothing better than milk, or concentrated broths, especially broths of fowls, as chicken broth, and very little or no starchy food. If you use any starchy food you should use it in very small quantity, and for the purpose of forming large masses of coagulated milk. It is a very good plan in the feeding of children and in the feeding of invalids with milk, to introduce into the milk a certain amount of thin starch water, inasmuch as this has the property of separating and softening the curd, so that the gastric fluids can get more easy access to the whole of it. In those cases, therefore, of gastric ulcer, where you are obliged to use the stomach, it would be very well to adopt the same principle you would adopt in feeding an infant which had been taken from the breast and put upon cow's milk. The great trouble in milk feeding is that the stomach is liable to be irritated by the masses of coagulated caseine which the gastric juices cannot get at to dissolve; and it is a good plan, therefore, to resort to frequent feeding with milk which has a certain amount of starch water added to it, for the mechanical purpose that I described. It is a good plan, I say, to use milk in this way, and to use it in small quantities and frequently.

You may ask whether there is any medicine to be given to cure these ulcers? I do not know of any. You may be obliged to give opium, to control pain, but I do not know of any medicine which you can give which may be expected to exercise a local effect in the healing of these ulcers. I believe that your best success lies in rectal alimentation and in feeding with milk. There is one point, however, in the medical treatment of these cases to which I would like to call your attention, and that is the washing off of the mucus which embarrasses the digestive power of the stomach and intestines in those

cases where they are complicated, as I told you they most commonly are, by a catarrhal condition; the washing off of this mucus every morning by means of the bitter waters. These patients are very apt to be much benefited, I think, by this proceeding. Where you have a simple case of gastro intestinal catarrh, alone or complicated with ulcer, your patient will find a good deal of comfort and decided benefit, according to my experience, from taking, every morning, or every other morning, a dose of these bitter salts, either in the form of one of the natural waters or in simple solution, in sufficient quantity to produce one or two watery evacuations. I have very great confidence in this method of treating the catarrhal conditions which are so common, and which may at any time be complicated by ulcers.

This is pretty much all the medication I have to commend to you in these cases—the use of the bitter waters, the washing off of the mucus which interferes with the functions of the stomach and intestine, opium to control pain, if necessary. You may ask whether there are any astringents to be given; any medicine which may be supposed to act upon the ulcer in the stomach as the medicines which you apply to act upon an ulcer of the leg? If you are sure of your ulcer, and if you are sure of getting at it with your application, I may say that it might be a very good thing; but, as I told you, in the majority of cases you are not sure of your ulcer, and then you are not justified in making use of so large a quantity of any local application, any astringent in solution, for example, that might be supposed to come in contact with the suppositious ulcer anywhere upon the coat of the stomach. So that there is nothing but empirical medication to suggest after the rational therapeutics that I have suggested. The rational therapeutics, you understand, consist in rest of the stomach, secured, if possible, by rectal alimentation, and a less measure of rest secured by giving the patient the most bland and easily digested food that is to be found, namely, milk and concentrated broths, and opium as a medicine, and the bitter waters as a means of washing off the catarrhal mucus.

You notice that this patient is extremely anæmic, and some of the very interesting symptoms of her anæmia are noted in this history. She has the anæmic murmur well developed in the præcordial region and in the course of some of the larger arteries. You can see, from her complexion, that she is anæmic. And in connection with this anæmia certain symptoms are noted here which are specially worthy of your

consideration. It is stated that the patient is very sensitive to pressure in the umbilical region, and on moderately deep palpation a distinct heaving impulse is conveyed to the hand, synchronous with the heart's systole. On auscultation at the upper edge of the umbilicus you get a distinct, loud, systolic bruit. The sensitiveness to pressure and the pulsation are such as would suggest aneurism, and yet the fact that the patient has recently had severe hemorrhage, which is very apt to be followed by marked and perceptible pulsation, is, I think, the most probable explanation of this pulsation. She is young to have abdominal aneurism; she has not the diseased condition of the arteries which is apt to be found in abdominal aneurism; she is a woman, and so far is not likely to be subject to this disease, the majority of subjects of abdominal aneurism being men. Therefore, I am inclined to believe that we should exclude the idea both of heart disease and of aneurism which the murmurs heard in the region of the heart and the murmurs and the pulsation observed in the abdominal aorta might suggest.

The note made of this patient to day is that she is very hungry. This is a symptom which these patients not infrequently complain of, especially if they are (not?) nourished by the rectum, but you have to be very cautious. There is room for a vast amount of judgment and tact in the feeding of these patients. You can defeat your purpose very easily by over feeding them, and it is better that they should suffer a little from hunger than that you should overtax the powers of the stomach. If they are very hungry, or if they suffer pain, you are justified in controlling this pain by the use of morphine, and the best way of using morphine is to use it hypodermically. But it is better that the patient be allowed to suffer some than that she should be allowed to use morphia in any considerable quantity.

Grave's Disease.

This woman, gentlemen, has Grave's disease, the striking features of which consist of three symptoms which she presents, namely, an excessive degree of palpitation, a moderate amount of enlargement of the thyroid gland, and a moderate degree of exophthalmus. All these three symptoms are apt to coexist in this disease, the exact nature and cause of which is not comprehended, but these three symptoms are so frequently found associated that they were described long ago by Graves and Basedow almost contemporaneously, and the disease has since been known by the names of both of those physicians.

The pathology is probably connected with the vaso-motor system of nerves. This woman, when she came here, was so feeble, and suffered so much from the cardiac symptom, cardiac dyspnoea, that she was obliged to remain in bed, and she had once or twice very severe dyspnoea from oedema of the lungs, oedema being an incident which is not unlikely to occur where there is an extremely rapid and irregular action of the heart, such as occurs in this disease. But she has steadily improved under rest and cardiac stimulants, digitalis and iron, so that she walks about the ward and has a fair degree of comfort. She still has a rather rapid and irregular heart. There are cases in which the patient can hardly get along without rest. There are cases in which you would do well to put the patient to bed, and secure rest by artificial means if necessary. You may have to give rest to the heart by diminishing the frequency of its pulsations, and this, as you know, you can do by giving digitalis, and digitalis is vaunted by several distinguished authorities as the remedy par excellence in this disease. If you will read the account of it which Cruso (?) gives, you will be led to believe that digitalis is a remedy which is likely to cure all cases, or, at least, a majority of them, but, unhappily, I have not found in my experience that it has always acted satisfactorily. I think that, as a rule, it does give a certain amount of benefit; it diminishes the frequency and increases the force of the cardiac pulsations, and this of itself is an important factor in the cure of this disease. I have used another remedy, the iodide of potassium, under similar circumstances, with the most gratifying results in a few instances. It has been used here, and has contributed, I think, to the improvement which the patient enjoys.

Supernumerary Fingers.

Here, gentlemen, is a case of supernumerary fingers. The patient is a colored man. I will not call your attention to his disease to-day, but I simply show you that he has an extra little finger on each hand. He has no use of it. Other members of his family have the same, and it is not uncommon for supernumerary fingers and toes to be hereditary.

Pericarditis.

Here is a patient in whom you will hear a well marked friction murmur over the heart: In listening to it you will in the first place observe how superficial the sound is, and then you will observe how it is modified by the breathing, it being more distinct in expiration than in inspiration; then you will observe the creaking

character of it. It is very like the creaking of new leather. You could scarcely mistake that for anything else than what it is, a pericardial friction sound. It is not smooth, like an endocardial murmur. It is varying in intensity, it is exceedingly rude, it is superficial, it is creaking in character, and it is most distinctly heard at the apex.

Now, this is another interesting example of pericarditis occurring independently of any complication, and yet it is probably the inflammation is of a rheumatic character. He says he has never had rheumatism; he is a pianist by profession. I say it is probable the nature of the inflammation is rheumatic, inasmuch as this is the most common cause of pericardial inflammation. And, remember, that in some of these cases the pericarditis is not only the first sign of rheumatic attack, but in some instances it may be the only sign, as was the case with a patient you saw before.

Pericarditis is one of the diseases for which the older writers were very much in the habit of giving mercury. It was thought that mercury was especially valuable as a means of preventing fibrous exudation and of absorbing it when it had occurred, so that in the time of Dr. Latham, and even in the time of Dr. Watson, the utility of small doses of mercury pushed to the point of ptyalism was considered as pretty well established. When mercury was banished from the pharmacopœia almost entirely, as doctors lost faith in its power over inflammations, it ceased to be used in this disease, and I think that very few, of late years, are in the habit of using mercury in pericarditis, or of treating it in any other way than they would treat rheumatism, by antiphlogistic remedies and by local counter irritation. The location of the disease is such as to lead one to expect a good deal from counter irritation, as by cupping and by blistering the præcordial region. Most of these cases, therefore, are treated by counter irritants, in the shape of blisters, cupping, etc., and for the rest, they are treated on general principles, according to the morbid condition with which they are supposed to be complicated. I have told you that pericarditis arises under various circumstances. It occurs, for example, in the course of some of the essential fevers. It is a complication, not infrequently, of scarlet fever; it is a complication of typhoid fever sometimes; it is a complication of rheumatism more frequently than of any other disease; and it is one of the issues of that condition of the blood which arises from protracted disease of the kidneys. It is one, that is to say,

of the issues of the uræmic state, and not a very uncommon mode of termination in chronic renal disease. It also arises as a result of pyæmia.

Now, the treatment of pericarditis, so far as medicines are concerned, is based upon the condition which accompanies it. If it complicates a case of scarlet fever your treatment will hardly depart from the treatment which you had inaugurated for that disease. You might resort to counter irritation, but I do not think there is any special medication which you would resort to under these circumstances other than the medication which is appropriate for the disease with which it occurs. Then, again, where it arises as a complication of rheumatic fever, it has been thought of late years that the treatment which was indicated for the arthritic disease was the most appropriate for the pericardial complication. And so with the other conditions which are complicated by this disease. The idea that mercury has any specific effect in preventing the occurrence of excessive fibrous exudation, or in causing its absorption after it has occurred, is, I think, not tenable, and very few cases nowadays are subjected to the mercurial treatment.

The chances of recovery from pericarditis depend upon the condition under which it arises. In the rheumatic form it is almost invariably followed by a successful result. That is to say, it is very rarely a fatal malady where it is rheumatic in its origin. It is in pyæmia and chronic Bright's disease one of the modes of termination. In scarlet fever, where it seems to be associated most frequently with the acute form of Bright's disease, it is a very serious complication, though not necessarily fatal.

COMMUNICATIONS.

RÆTHELN, OR GERMAN MEASLES.

BY E. R. STONE, M.D.,

Of Philadelphia.

Read before the Northern Medical Association, of Philadelphia.

If I may be allowed a somewhat paradoxical expression, I would say, at the outset of these remarks, that the chief importance of rætheln rests in the knowledge of the fact that it is not important at all. While the future welfare of our patient is in no wise jeopardized by an attack of this disease, we, as all-wise physicians, are expected to recognize all sorts of disease, even the most trivial, and form a diagnosis on sight. It is for the purpose of refreshing our memories on some of the prominent features of

rætheln, and to start a discussion upon it, that I have ventured upon these remarks.

It has been only of late years that observers have admitted the existence of an eruptive fever (separate and distinct), but having some likeness to scarlet fever, and especially to measles. Indeed, I presume that many still refuse it a place as a distinct disease, holding some one of the old ideas prevailing years ago. The chaos of conflicting opinions and theories is well reflected in the various names which have been given the disease from time to time. Thus we find it called "roseola" by the English, "rubeola" by the Germans, or "rætheln," and German measles or bastard measles by those whose clumsy tongues fear to attempt the German diphthongs. It will be interesting to look for a moment at the history of the disease, and for this purpose, I will draw largely upon the article in Ziemssen's Cyclopedia.

More than a century ago, English and French observers described an exanthem similar to, but with many points dissimilar to measles and scarlet fever. This received the name of "roseola," and was soon afterward described by the Germans under the name of "rubeola." This latter name was particularly unfortunate, because in English speaking countries, at least, this name had already been appropriated for real measles. Perhaps this latter circumstance assisted in creating confusion as to the nature of the disease, for we find many competent men confounding rubeola with measles and scarlet fever, and even teaching that an attack of it would protect from the more dangerous exanthem.

Even as late as the middle of the present century many looked upon it as anomalous measles or scarlet fever, and some even brought forward figures to show that it destroyed more lives than either of the more common fevers.

Others allowed a "certain individuality" to the disease, as a hybrid or cross between measles and scarlet fever. Others, like Willan, Hebra and West, refused to give it place as a specific disease, regarding those cases which could not be classed as anomalous measles or scarlet fever, as simple roseola from ordinary causes. Later observers have, however, discarded all of these views, and have been led to look upon it as a separate disease, chiefly because it presents several features of its own, and especially because it has been observed to occur in persons who have already had measles and scarlet fever, and also that it carries with it no immunity from the latter diseases. These facts, I think, give a quietus to all theories which seek to class rætheln

with measles and scarlet fever, while its epidemic nature and undoubted contagiousness will not harmonize with the idea of a non-specific disorder.

If, then, we assign to rütheln a place of its own in the list of eruptive fevers, we have a contagious, self protecting disease of slight severity and short duration, with an eruption which, in the majority of cases, has a decided resemblance to that of measles, although it is said in some cases to be more like that of scarlet fever. But in searching the literature of the subject I have not been able to find the record of any cases of a scarlatina-like eruption. They have all been a measly rash, and the number of cases which I have seen in the last few months have all been of the latter character. Rütheln has a decided epidemic tendency, and several epidemics of it have been carefully observed and described. It is said to have an incubative period of about fourteen days, although a sufficient number of facts are wanting to substantiate this point. It has an undoubted preference for children and young adults, and we have no record of second attacks. The onset of the disease is usually quite sudden, and there is no period of invasion, such as is so well recognized in ordinary measles. The eruption appears coincident with, or very shortly after, the development of a slight catarrhal condition of the eyes and naso pharyngeal mucous membrane. In many cases there is absolutely no fever, even at the invasion of the disease, a fact which I have had several opportunities of verifying. In other cases there is a slight rise in temperature, which is often accompanied at first with some chilliness. It is also stated that the glands of the neck are often somewhat swollen. I have noticed in several cases swelling and tenderness of one or two post-auricular glands. The eruption of rütheln deserves careful study to distinguish it from that of measles. It first appears on the face as small, elevated, rose-colored points, about the size of pin-heads; these appear in round or oval groups, not generally confluent, smaller than those of measles and not crescentic. The eruption spreads rapidly from the face, consuming from one to two days in covering the surface of the body. It remains but a few hours well-marked, and has already begun to fade on the face before it has reached the feet. In the majority of cases no desquamation can be detected. I have noticed, however, a slight staining of the delicate skin of the face, lasting for two or three days after the disappearance of the rash. There seems to be no disorder of the digestive organs, and no tendency to bronchitis

or kidney involvement. Indeed, if, as often happens, there is no fever, the patient is not considered sick enough to keep the bed. I have always noticed some congestion of the throat and slight swelling of the tonsils, but very little of the coryza usual in measles. In the case of a young lady, the throat trouble remained obstinate until some astringent application dissipated it. It will be remarked that this account of symptoms has many points of likeness to the features of common measles, and, undoubtedly, a sporadic case of rütheln might easily be mistaken for an anomalous case of that disease; but a succession of similar cases of this kind, and none of ordinary measles, would decide in favor of rütheln, for measles masked and ill-defined in one will almost certainly show itself plainly in another patient exposed to the contagious principle.

Allow me to emphasize briefly the points of importance in differential diagnosis. In measles there is a well-marked prodromal stage of catarrh; in rütheln the eruption appears at the same time as the catarrh. The papules of measles are larger and more red, and arranged in a crescentic form; those of rütheln, smaller, paler, and grouped in round or oval spots. The fever of measles is marked and persistent until the fading of the eruption; of rütheln absent, or slight, subsiding in a few hours. There is well-marked desquamation in one, very little, if any, in the other. The eruption of rütheln disappears in from one to two days, that of measles lasts for four days. The distinction from scarlet fever is plain, for, at least at this time, rütheln has no marked similarity to it.

The clinical history of the disease in a household where I had opportunities of studying it will be interesting in this connection. It was first noticed in the latter part of November, affecting a boy aged twelve years, who had the eruption marked on the face, trunk, and arms, but scarcely visible at all on the lower extremities. He was said to have had slight fever at the onset, but none was found on my visit, three or four hours after. The tongue was slightly coated, eyes red, and some difficulty in swallowing, due to some redness and swelling of the mucous membrane; a post-auricular gland on the right side was enlarged, other lymphatics apparently normal. I had previously attended him with undoubted measles, and by one of those happy accidents of inspiration, I blundered upon the diagnosis of German measles, the correctness of which I think was proved by subsequent events. In between two or three weeks a little

girl aged five years was attacked with almost identical symptoms, the only difference being that the rash was even less plentiful than in the first case. Cases three and four occurred in about one week after the second and four after the first. The disease this time attacked a light-colored woman of about thirty, and her son of ten years. In them there was no fever or indisposition sufficient to put them to bed. Finally, three others in the family were seized during the last week in January. These were all females, *æ*t. respectively fourteen, twenty-four and twenty-nine. The last mentioned, a married lady and mother of Case two, was much more ill than any of the others. The eruption came out confluent on the face, which, with the injection of the eyes, gave her a decidedly bloated appearance. And the small round groups of papules on the wrists and neck, at first glance, looked uncomfortably like smallpox, a similarity which would not, however, stand the test of close examination. Tongue white, throat considerably inflamed. The thermometer marked one hundred and one degrees in axilla, and there was premature menstruation. In less than twenty-four hours the rash had covered the whole surface and was beginning to fade on the face; temperature ninety-nine and a half. At forty-eight hours a mere trace of eruption was all that remained, and the fever had entirely disappeared. During the height of the disease painful and swollen glands were noticed behind each ear. In this case, in spite of the severity of the skin involvement, no desquamation could be detected. The only abnormal sensation complained of in the skin was a sense of tension and slight burning.

The history of these cases is important as evidence of the contagiousness of the disease. Whence the first case came I am quite in the dark, without it can be charged to that alleged disseminator of disease, the public school. That this first case infected the others I feel convinced, in spite of the opinion of a medical friend, who would explain them all on the theory of roseola from ordinary causes. This view, it seems to me, is untenable, because the eruption was not like an ordinary roseola, and it is surely charging too much to the account of that much abused organ, the stomach, to suppose a skin eruption would follow indigestion successively during two months, in seven members of one household, and that without the slightest evidence of indigestion, except the rash. Another fact is noteworthy—the disease attacked all the children and young adults living in the house, thus consuming all the material which we are taught it is

went to feed upon. No efforts at isolation were attempted after the trifling nature of the disease was explained, so that abundant opportunity was afforded for its spread throughout the family.

TRAUMATIC TETANUS—RECOVERY.

BY M. C. BUIDRIDGE, M.D.,

Of Huntsville, Ala.

Jesse Jordan, colored, laborer, aged about 25, while cleaning the saws of a cotton gin when in motion, November 19th, received on the dorsal aspect of the forearm a severe wound, which was inflicted by four saws, cutting as many parallel lines, from one-fourth to one-half of an inch in depth, beginning at a point two inches below the elbow, and terminating at the metacarpophalangeal articulation. Two of the extensor tendons were divided and the third metacarpal bone well nigh severed. Intense pain and considerable hemorrhage were present. The wound was thoroughly cleansed with cold water, the incisions were dusted with salicylic acid, the divided tissues were brought as nearly together as possible by adhesive plaster, then dressed with carbolized oakum, over which a thin roller was loosely applied. A full dose of opium was then administered, and instructions given to continue the opiate as often as necessary to relieve pain and promote sleep. Patient reported at my office on the 22d, being the third day after the accident. The dressings were removed, the wound thoroughly cleansed, when salicylic acid, adhesive plaster, carbolized oakum and roller were applied, as in the former dressing.

25th. Wound dry and hot, but little suppuration. Cleansed with warm water, and changed the salicylic acid for Peruvian balsam, which was freely applied with oakum and plaster as before.

28th. Wound very much improved, suppuration and granulation going on well. Continued treatment.

30th. Wound nearly closed throughout from above downward to a spot on the dorsum of the hand, spot not larger than half a dollar. Ordered a continuation of the balsam and oakum dressing until cured.

Dec. 15th. I was summoned to see my patient, and was informed by the messenger that patient thought he had taken cold; his side pained him, could not bend his neck, nor could he swallow as usual.

I at once suspected trismus, and advised the messenger to have another doctor to see the patient, as I was engaged for the night, and could

not see him for several hours at least. Failing to secure the services of a physician, I prescribed chloral hydrate in thirty-grain doses, to be given in syrup lemon, every two hours, until pain was relieved and sleep induced.

December 16th. On visiting my patient I found him suffering from tonic spasm of the post-cervical muscles and muscles of the back; could not bend his body nor open his mouth sufficiently to protrude the tongue, nor could he swallow solid food, an effort to do so would instantly provoke a convulsion. The wound, on examination, I found healed entirely, except a small spot immediately over the third metacarpal bone. The wound had not given him any trouble for more than two weeks; his bowels were confined, had not been opened for three or four days; pulse about natural; temperature normal; urine normal. He complained of periodical paroxysms of pain and spasm recurring at intervals of twenty or thirty minutes. The pain was referable to the epigastric region, and extending to the back.

On inquiring I found he had taken the chloral as directed, during the afternoon and until midnight, when he felt relieved and discontinued the medicine. I then gave twenty grains of calomel and directed a clyster to be given in three hours. Ordered patient to be placed into a water bath as warm as he could bear, and kept in the same for four or five hours, frequently adding warm water:—

R	Chloral hydrate,	grs. xv	
	Potassi bromidi,	grs. xv	
	Fl. ext. Calabar bean,	gts. v.	M.

in simple syrup every two hours, to be continued until spasms and pain were relieved.

17th. Patient rested much better during the afternoon and evening of the previous day, but did not rest well during the latter part of the night. Bowels had moved freely. Pulse 100; temperature 99°; urine scanty. He had not taken any nourishment save a small quantity of sweet milk. Continued treatment, with positive instructions to keep up the use of the medicine every two hours until its full effects should be realized.

18th. Patient slept about three or four hours during the afternoon, and about the same during the night. Pulse normal in frequency, but not so full. Temperature 99°; urine not so scanty; has taken beef tea and milk punch. Continued treatment, but did not require the bath to be taken so often.

19th. His condition much better, though opisthotonic spasms continue, with paroxysms of

pain every two or three hours. Has slept some during the night. Took medicine regularly until midnight, and took one bath. Calls for chicken broth and milk punch. Continued treatment.

20th. He is very much better, though sudden noise or surprise will provoke a spasm, well marked, but short and slight. Discontinued the bath. Ordered beef tea and milk punch to be freely given. R. Bromidia, ʒj. prepared by Battle & Co., St. Louis, with the usual amount of Calabar bean; dose three or four times daily, according to symptoms, with instruction to keep patient quiet and warm. Treatment continued until the 25th, when it was discontinued entirely, and patient discharged cured.

The points of special interest in this case are, first, the length of time which elapsed after the injury was received until the development of tetanus, the time being twenty-six days.

Secondly, the duration of the tetanic seizure, that being about twenty days. Thirdly, the large amount of chloral hydrate and potassii bromidi which was taken, about one and one half ounces of the former and one ounce of the latter, together with not less than one-half ounce fluid extract Calabar bean. Most of this medicine was taken during the first five days.

Lastly, the marked benefit which was derived from the use of the hot baths. This was, in my opinion, incalculable. The bath did not only have a decided relaxing effect, but in a marked degree tranquilized the nervous system, thereby assisting the Calabar bean to relax the tonic muscular rigidity, while at the same time it assisted the chloral and bromide in controlling the nervous system.

HOSPITAL REPORTS.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. JAMES H. HUTCHINSON.

Reported by Dr. GEORGE F. SOUWERS.

A Case of Myelitis Following Caries of the Spine.

GENTLEMEN:—The patient I shall bring before you this morning is S. W., aged 34, a machinist by trade, who was admitted into the hospital on February 9th of the present year. His family history shows that his father died of dropsy, his mother of some injury the nature of which he does not know, and all his brothers and sisters are living and in good health. Three and a half years ago he had an attack of quotidian ague, which lasted for two months, and which has not since returned. Before this, however, he noticed that when he sneezed or drew a full breath he could feel a sharp pain in the region of the stomach. Lately these pains have become more severe and

are now caused frequently by the act of coughing. About three years ago, after having been working in the rain and in consequence having got thoroughly wet, he was seized with a sharp burning pain in the small of the back (low down in the lumbar region), which lasted about a week. From that time he was subject to recurring attacks of pain, which not only gradually increased in severity but also in frequency and duration, until early in the summer of 1879, when the attacks became less severe, and after a time ceased to recur. During one of these attacks of pain, while he was having his back rubbed, it was noticed for the first time that there was a curvature of the spinal column, low down in the dorsal region. It was very slight at that time, but has since gradually become more marked. He has never suffered pain in the curvature itself, all of his pain being at first referred to the small of the back.

After the cessation of these lumbar pains, in August, 1879, he felt almost perfectly well, until the following January (about one year ago), when he began to suffer from sharp shooting pains in the legs, and noticed that they would feel tired after a slight exertion; this feeling of fatigue was shortly followed by one of weakness, and he soon afterward observed that he dragged his toes in walking. This caused him to stumble frequently. The loss of power gradually increased, and during last summer became associated with a decided diminution of sensation in the same parts. Last September retention of urine and constipation were added to the other symptoms, but during the past two months the retention of urine has given place to incontinence of urine. In December last he had a recurrence of the pain in the back, and for several weeks past he has suffered from spasmodic twitchings of the muscles of the lower extremities, which gives rise to severe pain, especially at night. He has never had any feeling of constriction around the body, in other words, he has not suffered from the "girdle sensation." So far as we can discover, he has never received a blow or other injury of the back, but he thinks he has frequently strained it in lifting heavy weights. He admits that he has had an attack of gonorrhœa, but denies ever having had syphilis, and, moreover, does not present any evidence of having suffered from specific disease. I accept his testimony on this point, as he appears to be a truthful man. Until last fall he was able to walk on crutches, but at that time the twitchings of the muscles of the legs became so violent, and was so much increased whenever his feet touched the ground, that he was obliged to give up all attempts at walking. Indeed, he says that he was sometimes thrown down by the violence of these muscular contractions. About two months ago the paralysis became complete, and he has since been confined, most of the time, to his bed. Headache has been present only for the last two weeks. His appetite has always been good.

I have culled the foregoing facts for you, gentlemen, from the statements made by the patient, and entered, upon his admission, into the hospital register. On referring to the notes of the resident physician, I find that upon admission the patient was free from fever and anæmic,

that the bowels were constipated, and that, though able to tell when he was about to have a passage, yet he was unable to control it; that incontinence of urine was still present; that the tongue was clean and the appetite good.

He has a marked posterior curvature in the neighborhood of the tenth dorsal vertebra; both legs are completely paralyzed, the muscles being quite rigid and somewhat wasted. The patella reflex and ankle clonus are well marked, especially on the left side. The urine is slightly albuminous, which is probably owing to its containing a good deal of pus.

We have now the history of the case, and so our next step must be the consideration seriatim of all the issues involved. On examining him I find a curvature below the middle of the dorsal region, but he insists that the pain has always been lower down than this; in fact, there is not much tenderness even on forcible pressure over the curvature. Upon the back there are a few points of superficial ulceration, which shows that there is a tendency to the formation of bed-sores. This, as you are aware, is not an uncommon occurrence in certain spinal affections, and indicates that the nutrition of the parts is in a depressed condition.

On examining his legs we find them flexed, and, as you see, requiring the exercise of considerable force on the part of my assistants to straighten them. The slight movement of the lower extremities which the patient is able to produce is due entirely to a feeble contraction of some of the muscles in the region of the hips. But while, as I show you, reflex action is enormously increased, he is unable to move even his toes, much less to raise his feet from the bed. A pin thrust deeply into the skin of any part of his legs always gives rise to the sensation of heat, which is at times very painful to him. He does not feel the same pin if the skin of the leg or thigh is lightly touched with it, but normal sensation is found to exist above the level of the umbilicus.

If the feet are forcibly and rapidly flexed, decided convulsive movements of the muscles of the calf are produced. This is technically known as the ankle-clonus, and is more marked in the left side. If the patella of the same side is drawn down rapidly, the quadriceps femoris is in the same way thrown into clonic spasms. The patella tendon reflex is also increased. This is the name given to the contraction of the same muscle produced by striking the tendon of the patella, when the leg is flexed and allowed to hang loosely over the arm of the operator, or crossed over the opposite knee.

I have alluded to the fact that after retention of urine had existed for some time it was replaced by incontinence.

It frequently happens in these cases that the incontinence is only apparent, and that the condition really present is retention, the over-distended bladder relieving itself by a constant dribbling from the penis, just as it does occasionally in typhoid or other fevers. It is not an unusual circumstance for the nurse to assure the physician, in such cases, that the patient has passed his water freely, and to point to the soiled bed in confirmation of his statement. Yet, on

examination, the bladder may be found greatly distended. Consequently, you must, in all spinal and febrile affections, watch closely the condition of this organ. In this case I have satisfied myself that retention does not exist.

The upper portion of the body seems to be free from any nervous trouble, the grasp of the hand being almost as strong as in health. All the symptoms, therefore, point unmistakably to disease of the cord seated at or near the position of the curvature of the spine. Further, you will recollect that the patient insists that the first symptom he noticed was pain on sneezing, referred to the region of the stomach and umbilicus. His pain was sometimes caused even by a deeply drawn breath. It undoubtedly indicated the existence of serious disease of the vertebræ, and of commencing disease of the cord or of its membranes. It was a warning which, unhappily for the patient, was unheeded, for at that time proper treatment would have prevented, in all human probability, the occurrence of the serious disease of the cord from which he is now suffering. There can be no doubt that in this case the parts first diseased were the lower dorsal vertebræ; that from them the inflammation has extended to the spinal meninges, and that finally the cord has become involved. Pain in the epigastric region is not infrequently one of the first symptoms of caries of the vertebræ, and is probably due to irritation of the posterior roots of the nerves. The pain in the back was unquestionably largely caused by the disease of the vertebræ; but the pain in the legs, which occurred later, was probably chiefly due to spinal meningitis. The twitching of the muscles, the anæsthesia, and the paralysis, we must, of course, refer to implication of the cord itself.

The convulsive twitching of the muscles and their rigidity is one of the most remarkable phenomena of the case. You will rarely see one in which the ankle and the patella clonus and the tendon reflexes are so well marked as in this. These are symptoms which have been recently referred to disease of the lateral columns of the cord. This is, however, a hypothesis merely, supported rather by physiological than pathological researches. The alterations of sensation indicate the existence of disease of the gray matter of the cord. These alterations of sensation are very peculiar, and I will call your attention to them more particularly than I did in the early part of my lecture. A light touch with the finger or a pin the patient does not feel at all anywhere below the level of the umbilicus. If, however, the pin is thrust deeply into the skin of the foot the leg is instantly jerked away with a good deal of force, and he complains of a burning pain. The same effect is produced by a lump of ice, or by heated metal. I have spoken of the force with which the foot is jerked away when a pin is thrust into it, and I shall tell you presently how I was able to make a rough estimate of the amount of this force. These contractions are caused by a much slighter irritation than the insertion of a pin into the flesh. Thus, the weight of the bedclothes resting on the feet and the passage of the feces are sufficient to cause them. Wishing to prevent them, or at least to moderate their violence, I attached weights to his feet, just

as is done in making extension in the treatment of fracture of the thigh. The experiment, however, failed completely, and was soon abandoned, sixteen pounds being raised a considerable distance almost as easily as I could lift them from the floor. There is little wasting of the muscles of the lower extremities, which would seem to indicate that the anterior cornua of the gray matter are not largely involved in the disease.

I have already said that the time for an efficient treatment of this case has been allowed to pass. Unfortunately, the physicians who first saw him mistook the nature of his malady, and addressed their treatment principally to a gastritis which they believed to be present. Is all treatment at the present time, therefore, useless? I think not, for although it would be unreasonable to expect a restoration of power to his legs, yet something may be done to mitigate his suffering. We have here, unquestionably, myelitis to contend with, and we should therefore employ those remedies which experience has shown to be useful in this disease. I prescribed for him, upon his admission, large doses of ergot. I cannot see that any material improvement in his condition has followed the administration of this remedy, so I shall, therefore, discontinue it, and order for him twenty grains of iodide of potassium and one eighth of a grain of extract of belladonna three times a day, and shall direct that the dose of the latter drug shall be rapidly increased so as to bring him quickly under its influence.

As you are aware, electricity in its various forms is used in the treatment of almost all forms of paralysis, but in the present case, in which the irritability of the cord is so much increased I believe that it would only do harm, and have, therefore, not had recourse to it even for the purpose of testing the condition of the muscles. I am more in doubt in regard to the propriety of employing another remedy. I mean the plaster jacket of Professor Sayre. Unquestionably the disease has gone too far to allow us to hope much from it; but it might possibly, by causing a diminution of pressure upon the cord, favor the operation of the medicines I have prescribed, and I have therefore determined to resort to it. It is only fair to say that he has already had one applied and that it gave rise to pain and inconvenience rather than to relief from distressing symptoms. This may have been owing, however, more to want of skill in its application than to the remedy itself. The experiment is, I think, worth trying, and if it fails, it will at least do no harm.

Some of you may be inclined to attribute all the patient's symptoms simply to pressure, believing that this is alone, and in the absence of inflammation of the cord, sufficient to produce them. Although the sudden displacement of a vertebra, or the occurrence of an intra-spinal hemorrhage, is at once followed by paralysis, experience has shown that the cord accommodates itself to the more gradually occurring pressure occasioned by caries of the vertebræ, or by an intra-spinal tumor, and that paralysis does not usually occur until these sources of irritation have given rise to myelitis.

NOTE, March 29.—The plaster jacket was, soon

after the delivery of this lecture, applied by Dr. Charles T. Hunter, Surgeon to the Out-door Department of the Pennsylvania Hospital. Up to the present time no good results have followed its application, and it will shortly be removed. The patient, perhaps, suffers less pain than when first admitted, but, with this exception, there is little or no improvement in his condition.

MEDICAL SOCIETIES.

NORTHERN MEDICAL ASSOCIATION OF PHILADELPHIA.

The President, Dr. J. B. Walker, in the chair.

Dr. E. R. Stone read a paper upon *Roetheln* (see page 482). The Secretary then read a communication from Dr. W. B. Atkinson, who said: The subject is important because so constantly is this disease taken for measles, scarlatina, and even smallpox. The point which I desire particularly to impress is that the diagnosis is made by the *rapid extension* of the eruption from the face and neck over the body and extremities, and its *equally rapid disappearance*.

It is really harmless, never leaving any sequel, rarely requiring treatment. It is highly contagious. The eruption in various cases resembles measles, but without the crescentic appearance, or is efflorescent, like scarlatina.

An additional reason for an early and positive diagnosis is the relief thus afforded to all when the mild nature of the disease is known.

Dr. Wittig said that the treatment of all these slight fevers of childhood was chiefly the relief of symptoms, and that no mistake could be made even though a wrong name should be applied.

Dr. Hess had never before had his attention called to this disease, but now recognized it in two cases now reporting at the dispensary, and which he had thought to be measles in an aberrant form.

Dr. Welsh had seen several cases of the so-called German measles. About a dozen have been sent, this winter, to the Municipal Hospital,

as cases of smallpox. The eruption resembles that of ordinary measles, except it lacks the crescentic form of the patches; had seen a similar eruption follow vaccination, especially when the *bovine* virus had been used. He had also seen such an eruption immediately precede that of variola. There is always a doubt about the diagnosis. Had seen nothing to show its contagiousness, no second case appearing in the families under his care. No particular treatment required.

Dr. Montgomery reported three cases in which the eruption covered the whole body, being confluent in places; where discrete the patches were circular. None of them were sick, except the alarm caused by the appearance of the skin. They had not been vaccinated, and had all had the measles previously.

Dr. Beates had seen eleven cases this winter, two of which were attacked seven and nine days, respectively, from the time of their exposure. Two of them had measles previously. He had noticed no coryza or fever, but had observed an enlargement of a post-auricular gland, and slight inflammation in the throat. He understands that there is an epidemic now in progress in the Girls' Normal School of this city.

Dr. Heilman reported one case that he had attended in measles one year before. He understood that the disease spread through the family, but no physician was called.

Dr. Walker had seen one case upon a colored person, where the eruption so resembled smallpox in its first stage that he refused to give a diagnosis at the first visit; it disappeared, however, in two days.

Dr. Stone said he was very glad to hear many of the members say they had recently seen cases of *rietheln*, because so many others had cast a doubt upon the existence of the disease. For diagnosis the main points, he thought, were the absence of prodromes and of coryza; the rapid spreading and equally rapid fading of the eruption. There are no complications.

EDITORIAL DEPARTMENT.

PERISCOPE.

Treatment of Delirium Tremens.

Dr. Chancellor gives his treatment in the *St. Louis Medical and Surgical Journal*, as follows:

In recommending the plan of treatment to be described, the results for the past years clearly prove that no method can yield a more successful issue. I am aware that I do not agree with some of my professional friends, for whom I entertain the highest respect, but the evidence of its effects has been of a nature which I cannot refuse to admit and adopt. I lay no claim, of course, to originality in advising a treatment which has been often used, for the disease tends to a natural recovery, and it may be possible that other

methods prove equally successful. In estimating the value of remedies in delirium tremens, we should recognize the fact that slight cases get well spontaneously, or a simple palliative treatment may diminish the suffering of a patient. First, we should place the patient in a dark, quiet room, well ventilated, and exclude all but the attendant nurses; when the disease comes on during a debauch, or shortly after, and there is reason to believe the stomach contains alcoholic or malt fluids, an emetic should be prescribed; the best for this purpose is warm water, mustard or ipecac, or if necessary, the stomach pump may be used. Emetics, as they are generally supposed to act chiefly upon the stomach, do not produce by their local action the most beneficial effects; it is their general influence that the lan-

guor and relaxation which follows emesis calms the nervous agitation and disposes to a healthy sleep; if the emetic has not acted on the bowels, which it often does, a brisk purgative may be given (though not advisable in all cases), as it is a safe way of getting rid of the alcohol, which impedes the absorption of food. The patient is thus put to bed in a quiet room, under the care of a skillful nurse, who gives by direction—

R. Tinct. digitalis,	3 ss. 3 vj
Tinct. capsici,	3 ij
Spt. ætheris comp.,	3 ss
Aq. camph.,	q.s ad. 3 ij. M.

Sig.—Two tablespoonfuls well diluted with water, at intervals of three or four hours.

Should the first dose not pacify the patient, a second should be given, but seldom is it necessary to administer a third, but if it be required, give only one tablespoonful; the patient will now rest quietly for eight or ten hours. This should be followed by nutritive food, milk, soups, beef tea, eggs; but if there is much sickness or nausea, an effervescent mixture, Horsford's acid phosphate, soda water, milk with lime water, may be given; if patient refuses food, nutrient enemata must be employed. Stimulants now become absolutely necessary, but many physicians will hesitate, on moral considerations, from a dread of either seeming to give countenance to the habit of spirit drinking, or from fear of adding "fuel to the fire." It is true, that the majority of cases of delirium tremens do not require stimulants, for a variety of methods will cure the disease, or it will, in a greater number of cases, get well itself. Stimulants are absolutely necessary if the patient is a habitual drunkard, old or feeble, or if there are signs of adynamia. The most serviceable and popular are brandy, porter, cider, etc., which should be administered as the symptoms require it, or the judgment of the physician may dictate.

Ocular Symptoms in Different Diseases.

Dr. Gorecki, as quoted in the *Glasgow Medical Journal*, has tabulated his views as follows:—

Blepharoptosis, or the falling of the upper eyelid, indicates paralysis, complete or incomplete, of the third pair.

Lagophthalmos, or inability to close completely the palpebral fissure, is a sign of facial hemiplegia, idiopathic or a symptom of cerebral disease.

Strabismus occurring suddenly, and accompanied by diplopia, is most frequently the result of some cerebral affection.

Xanthelasma (a yellow lamina sometimes met with in the skin) of the eyelids, occurs in certain alterations of the liver.

Sub-conjunctival ecchymoses are frequent in whooping-cough, and may sometimes, at the beginning of the complaint, clear up a difficult diagnosis.

Redness of the conjunctiva, watering of the eye, etc., indicate in the child the outbreak of some eruptive fever, particularly measles. The prognosis is favorable if the tears come when the child cries, but fatal if the secretion of the tears is arrested.

Spots on the cornea are often the indication of a strumous constitution.

Dilatation of the pupil, or mydriasis, indicates excessive fatigue, the existence of intestinal worms, meningitis in the second stage, or a true amaurosis. The dilatation is most frequently connected with atrophy of the optic nerve. It is seen also during an attack of epilepsy, on coming out of chloroform, after belladonna poisoning, etc.

Unequal dilatation of the two pupils points to the onset of general progressive paralysis.

Contraction of the pupil is one of the early symptoms of *tabes dorsalis*. It is met with also at the beginning of meningitis, in opium poisoning, and in the first stage of chloral poisoning.

Deformation of the pupil, particularly after the injection of atropine, indicates an old iritis, in nine cases out of ten, of syphilitic origin, if not depending on some disease of the neighboring parts.

Cataract in subjects under say forty or fifty, is frequently of diabetic origin, and constitutes soft cataract.

Finally, the ophthalmoscope enables us to recognize the retinitis of albuminuria in Bright's disease, of simple polyuria, and sometimes in the case of women during pregnancy. Retinal hemorrhages, œdema of the retina, and embolism of its central artery, are sometimes met with in organic affections of the heart. Optic neuritis and perineuritis and atrophy of the disc are symptoms of syphilis, or of tumors in the neighborhood of the cerebellum or the *corpora quadrigemina*.

On Herpes Facialis.

The following extract is from a lecture by Dr. J. M. Finny, published in the *Medical Press and Circular*:—

Herpes facialis—a better name than *herpes labialis*—is met with most usually on the lips, at the muco-cutaneous juncture; but it occurs also on cheeks, ears, and nose. Though an accompaniment of an ordinary cold or dyspeptic attack, *herpes facialis* is present in pneumonia, cerebro-spinal, intermittent, and scarlet fevers. During the present session you have seen it in both scarlet fever and pneumonia, and you will recollect the different significance which may be attributed to it in these two diseases. In the latter, so usually do the patients who present it recover that some authorities consider it a most favorable prognostic; while in scarlet fever it is an omen of a severe type, in which nasal discharges, arthritic complications, and a prolonged fever may be expected. The late Dr. Stokes used to lay down, as a maxim worthy of note, that a vesicular complication of fever was ever one of serious import.

The most extensive case of facial herpes I ever met with occurred in a patient, aged sixty-six, who was admitted to this hospital in 1879, for pneumonia, as the whole of his right cheek, extending from the zygomatic arch to the nose was one mass of herpetic clusters, which became confluent. He made a rapid and good recovery. Notwithstanding the frequency of the favorable issue of pneumonia attended by herpes, I would not have you lay too much stress upon the value attaching to this symptomatic rash, inasmuch as most cases of sthenic pneumonia have a tendency

to recovery, and many cases in which herpetic rashes are absent do equally well.

The ordinary cases of facial herpes present no difficulties of diagnosis, but you should remember it may attack the mucous membrane of the mouth and palate. Should it be confined to these places, you may find some difficulty in recognizing the disease.

Within the last couple of months I came across a rather puzzling case of herpes, in consultation with Dr. William Lane, in the person of a well-known clergyman of this city. The whole soft palate, uvula, and arches of the palate were studded with vesicles standing on a reddened base. At first sight, scarlatina or diphtheritic inflammation passed through my mind; but the absence of the characteristics of those diseases, and the presence of a most copious vesicular eruption on the alæ and dorsum nasi, the upper lip, and the adjoining surfaces of the cheeks and chin, made the diagnosis easy.

Constitution of Human Milk.

F. Hoppe Seyler's "*Zeitschrift für Physiologische Chemie*" contains a valuable paper by Dr. P. Radenhausen, on human milk as compared with the milk of the cow, quoted in the *Chemist and Druggist*.

The author, after alluding to the importance of the subject from the point of national economy, by showing that the great mortality of infants under one year of age is chiefly owing to the substitution of cow's milk for that of the mother, especially in Paris, where the mortality of infants of the age mentioned has been as high as eighty-five to ninety-two per cent. of the births, gives the following account of his investigations:—

HUMAN MILK.

Specific Gravity.—The specific gravity of human milk varies according to the quantity drawn, between 1.028 and 1.084. Upon allowing the milk to collect for some hours in the mammary glands, the first portion drawn shows a higher specific gravity with little fatty matter, the further portions a constantly decreasing specific gravity with increase of fatty matter.

Milk Globules.—The milk globules are for the most part free from fatty globules.

Chemical Nature.—Human milk contains no caseine, but a kind of albumen with a small quantity of proteine and peptone, as found in blood. Human milk is alkaline, and contains far more sugar in proportion to the albumen than cow's milk.

ESSENTIAL DIFFERENCES BETWEEN HUMAN AND COW'S MILK.

Human milk is always alkaline, cow's milk nearly always a little acid and easily turns sour, which human milk does not so readily do. Cow's milk contains a larger proportion of proteine than human milk, and more albumen in proportion to saccharine matter, which is the converse of human milk.

A glance at the differences between human and cow's milk shows how well nature has provided for both man and beast. The young calf,

which very soon skips about after parturition, requires more albumen and less sugar than the young child, whose tender stomach requires a milk which will not easily turn sour, which contains less albumen and more calorific matter, which it then actually finds in the greater proportion of sugar.

The author hopes that a due consideration of the facts he has here brought to light will enable the chemist to propose a fit substitute for human milk for children that cannot be nursed by their mothers or wet nurses.

The Salicylic Treatment of Typhoid.

Mr. Tomkins reports, in the *Lancet*, that he has tried, in the Manchester Fever Hospital, with some success, the treatment of typhoid fever with sodium salicylate. He says:—

The number that I have treated with salicylate up to June, 1880, is forty-six, twenty-eight males and eighteen females, varying in age from seven to fifty-six years, the larger proportion being between fourteen years and thirty five. They represent only the more serious cases received into this hospital, and are about one-third of the whole number admitted during the time over which the treatment extends. In no case was the soda given when the temperature in the axilla was below 102°. The general treatment, in addition to the special, may be summed up thus: perfect rest, milk diet, with small quantities of beef tea, acid and opium when diarrhoea is excessive, acetate of lead or turpentine, with iced injections, for hemorrhage. Alcohol was never given unless the state of the circulation decidedly demanded it, except, in the convalescent stages of some few cases, in the form of wine. It should be noted that in the whole of these the temperature was taken every two or every three hours, night and day, while the salicylate treatment was being pursued, so that its effect, hour by hour, could be distinctly watched.

The routine practice has been this: As soon as it was certain that there was a continuous temperature of more than 102° in the axilla, fifteen to twenty grains of the soda were given every two hours. This, after about six doses, usually reduced the temperature two to three degrees; if not, the same dose was continued a few more hours until it had done so, this seldom exceeding twenty-four hours from the commencement. The dose was then diminished one-half, and given every two or three hours, increasing it through the day, if there was much tendency to exacerbation towards night-time. This was carried on for a period varying from three or four to nine or ten days, seldom exceeding the latter time, when the temperature would usually be fairly normal, with a little inclination to an evening rise, in many cases, for a few days after the salicylate was entirely discontinued. In most of the cases the usual physiological effects were observed, and in several alcohol was freely administered with the soda, in the form of brandy, whenever the pulse was feeble or the weakened action of the heart appeared to be becoming dangerous.

REVIEWS AND BOOK NOTICES

BOOK NOTICES.

Hydrophobia. By Horatio E. Bigelow, M.D. etc. Philadelphia: D. G. Brinton, No. 115 South Seventh St., 1881. 1 vol., pp. 154. Price \$1.00.

Of all the diseases to which modern communities are liable, there is, probably, none with greater terrors than that which this volume treats of. The fearful suffering and the generally accepted absolute hopelessness of the attack make it appalling in the highest degree. It is, moreover, widely prevalent, and there is hardly a village in our land but that some time during the year it is not thrilled by the fearful cry "Mad Dog!" For centuries it has been the *opprobrium medicorum*, and the latest investigations of its pathology and treatment, the latest advice as to its prophylaxis and prevention, are far from being either satisfactory or unanimous.

This is not attributable to a lack of study of the subject. Dr. Bigelow tells us that the library of the Army Medical Museum at Washington, alone, contains over *three thousand* monographs, treatises and articles bearing upon it. Being a resident of Washington himself, Dr. Bigelow has enjoyed these exceptional advantages to familiarize himself with the labors of his predecessors, and his monograph is a scholarly and masterly exposition of all that is known on the subject. His abilities as a linguist, as well as his thorough medical knowledge, are conspicuous in every chapter.

The first two chapters are occupied with the nomenclature and history of the disease. It appears always to have been rare in Syria, as, from contemporary travelers, it is said to be at the present day. No definite reference to it is made in the Old Testament, but nevertheless its antiquity is undoubted.

The earliest distinct mention of the disease occurs in a Hindoo medical work of great antiquity, dating probably as far back as nine or ten centuries before Christ, written by a renowned physician named Susruta. It is observed therein that when dogs, jackals, foxes, wolves, bears or tigers become rabid, they foam at the mouth, which remains open, and from which flows saliva; their tails hang down; they do not hear or see well; they snap at and bite one another, and thus communicate the same malady. The symptoms of hydrophobia in human beings who have been bitten are likewise detailed briefly, and are said to terminate in convulsions and death.

Homer and Hippocrates appear to have known it, and Aristotle certainly did; the physicians Galen and Celsus have considerable to say about its treatment. It appears at certain times, under

conditions not easily determinable, to have prevailed in an actually epidemic form. One of the most extraordinary of these epidemics was that which occurred in Peru in 1803-4, which Dr. Bigelow describes from a contemporary account:

The disease became general among quadrupeds, attacking them indiscriminately, but fixing itself especially upon dogs. The dogs exhibited the ordinary appearances of the affection. The cats ran about with hair erect. The horses and asses were arrayed against each other. The cattle leaped furiously, and engaged in hostile encounters. The disease, engendered, as the professor believed, by atmospheric conditions, was subsequently propagated by specific contagion, spreading into the interior of the country. It proved fatal to many of the inhabitants of Arequipa and Ica, carrying off forty-two persons in the latter town alone. In one instance, twelve fell victims out of fourteen bitten by a single dog. The largest number of deaths occurred in from twelve to ninety days after the bite. The affection would, therefore, appear to have been of a more virulent character than usual. It is likewise related that a number of slaves upon a sugar plantation contracted the disease by feeding upon the beef of rabid cattle, a statement which we can hardly accept as true.

The pathology and morbid anatomy of the disease are treated with fullness. The author states his dissent from Dr. Hammond's researches and opinions, and reaches the conclusion that the primary exciting factor of the disease is a "blood ferment," of a nature to inhibit the functions of the oxygen carriers of the blood, altering the red corpuscles, and interfering with the integrity of the blood plasma. Speaking of the pathological appearances recorded by Hammond and others, he says:—

The conclusion, therefore, seems irresistible, that the morbid changes noted are not *essential* and *primary* factors in developing the train of symptoms, but are, in all probability, *secondary lesions*, resulting from the terrible disturbance which the disease causes in the functions of the respiratory, vascular and nervous systems. Such phenomena could hardly, therefore, be of any value in determining the pathogeny of the affection, any more than are a thousand and one other morbid changes seen in various organs after death by hydrophobia, and which are well recognized as being merely *consequential* and non-uniform lesions.

The much debated question of incubation and the influence of age, sex and climate, are considered in chapter iv. The writer quotes numerous examples where the period of incubation seems to have extended over a year—even as long as fourteen years—and inclines to adopt Watson's theory, that the virus may become encapsuled in a nodule of lymph and there lie latent for an undetermined period, until some exciting cause shall set it free. Yet he appears

to quote with approval Dr. Dolan's opinion that after a lapse of a year there is a "scientific certainty" of the patient's safety.

Contrary to the general opinion, Dr. Bigelow maintains that mad dogs are about as numerous at one season as at another. The evidence he adduces is exclusively from European authorities, and we cannot but entertain some doubt as to its applicability to this country, where our seasons are so much more extreme than in central Europe. The following are the conclusions of the leading French official investigations on this point.

1. That there is no great difference between the seasons; 2. That the danger from mad dogs in the winter season is about the same as in the heat of summer; 3. That in the spring cases are most frequent, and in the autumn least frequent; 4. That the public opinion which regards winter as free from the curse of hydrophobia, and inculcates summer as causing the disease more than any other season, has no foundation in fact.

"This brings us to a conclusion of great importance, namely, that, so far as sanitary measures and the protection of the people is concerned, at all times and in all seasons we should be equally on our guard, and take efficient measures of protection against dogs. We must, however, observe that although the actual statistics furnish figures indicating an almost parallel number of cases for the seasons of extreme heat and extreme cold, it is due to the greater care in carrying out sanitary measures in summer than in winter."

The chapter on the symptoms, diagnosis and prognosis gives a vivid picture of the early symptoms and progress of a typical case, and the differential signs between such a one and the diseases with which it is possible to confound it, as tetanus, œsophagitis, etc. In prognosis, the author is hopeful, and condemns that despair of the resources of medical science which is too apt to possess the mind of both physician and patient in these cases.

In speaking of treatment, it is divided into the preservative, the curative, and the preventive. Of the innumerable and often absurd means popularly resorted to, or suggested by, writers, the author selects those which appear to be the most scientific, and to have the most evidence in their favor, such as curara, oxygen, the vapor bath, etc. Three chapters are devoted to this most important branch of the subject, but we cannot do justice to their contents by extracts.

The final chapters are entitled "How to recognize a mad dog;" "Emergencies, and how to treat them;" "Curiosities of the literature of hydrophobia," and "The most recent views of the pathology and treatment of hydrophobia."

The space to which this notice has already extended prevents us from continuing our quotations. To those who would make themselves familiar with the character and history, the prevention and the treatment of this dreaded disease, we unhesitatingly recommend this work as, for its compass, the best we have seen on the subject.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M.D., Lond. Fourth American, from the fifth English edition. Philadelphia: Henry C. Lea's Son & Co., 1881. Cloth, 8vo. pp. 347.

For a brief treatise on pathology—an "introduction" to the subject, as the author properly calls it—this volume has attained a merited popularity on both sides of the ocean. It is judiciously arranged, lucidly composed, and amply illustrated. Without fatiguing the reader with excess of detail, it presents a sufficiency of information on the various degradations of tissue to make their nature and appearance familiar.

Considerable new matter has been added to this edition, and the text throughout has been subjected to a careful revision. Some new wood-cuts have also been added, drawn from the author's microscopical preparations. The cuts are well printed, and number in all 138. The volume is printed and issued with the care characteristic of the well-known firm who publish it.

First Biennial Report of the North Carolina Board of Health, 1879-1880. Raleigh, 1881. pp. 201.

With a wise understanding of the advantages of health to a community, the State of North Carolina created, a few years ago, a Board of Health, the first report of which is before us. The efficient Secretary, Dr. Thomas F. Wood of Wilmington, was active in organizing county boards, subordinate to that of the State. The subjects especially to be investigated were the death rate, medico-legal examinations, drinking water, epidemics, vaccination, abatement of nuisances, etc. All physicians were supplied with blanks to be filled, etc. The results are detailed to a certain extent in the volume before us, in the form of statistical bulletins, etc.

A number of papers are added in the Appendix. The most important of these are a circular on ventilation, drainage, drinking water, and disinfectants, sanitary engineering, by Prof. William Cane, C.E., and the limitation and prevention of diphtheria, by Dr. R. L. Payne.

The start made by the board is a good one, and we have no doubt will be followed by positive and great benefit to the public.

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SOME RECENT VIEWS OF LIFE AND ITS FORCES.

Science to-day disavows the distinction between Matter and Force, pronouncing it an artificial one, resting on imperfectly understood observations. Motion and Energy are the two factors of the universe.

When we come to apply this general law to the phenomena of Life as exhibited in organized beings, we find that there are two fundamental processes which constitute the primitive forces of living matter. They are, 1. The transformation of kinetic (living or active force) Energy into potential Energy (latent force). 2. The transformation of potential into kinetic Energy. The former may be called an "anenergetic," the latter a "katenergetic" process.

Plants store up sunlight in the form of potential energy; hence they are chiefly occupied in anenergetic processes; but not exclusively, for they also evolve carbonic acid, and thus develop kinetic energy.

Animals, on the other hand, are almost entirely occupied with katenergetic processes. They are constantly seizing substances and evolving their stored up energies in the forms of active force.

These two principles suffice to explain the purely chemical phenomena of life. But there are facts which they do not explain, especially the tendency to assume definite forms. The atoms of a molecule cannot be supposed to act preferentially in any one direction. Whence then comes Form?

There are a group of secondary forces called "contact forces," developed by contiguity; they are adhesion, friction, diffusion, electrical tension, attraction, repulsion, and the like. They are the forces of association, and in the inorganic world they determine the phenomena of crystallization. There are many reasons to believe that the ultimate molecule is itself a crystal. The materials furnished by the purely chemical processes become subject to these secondary forces, and thus the origin of Form is explained.

Such is the explanation of this vast question

offered by Dr. J. BERNSTEIN, of Halle, in a recently published monograph.

Can the explanation of the forces of living matter be extended to a resolution of the problems of sensation and consciousness? He thinks not. There is a chasm, a sheer gulf, between the last acquisition of physiological chemistry and the first step of psychology.

How the physical impression excites or becomes the mental sensation, completely eludes our researches. How Consciousness—that fundamental condition of psychical activity—is related to chemico-vital changes, he gives up as an inquiry at present wholly out of our reach.

A contribution to this has been made by an eminent Scotch writer, Dr. JOHN CLELAND, in a work published this year, entitled "Evolution, Expression and Sensation." It contains one chapter on the Physical Relations of Consciousness and the Seat of Sensation. The difficulties in the way of the present generally received theory of sensitive conduction and of sensation are forcibly pointed out, and a means of escape from them indicated. It is supposed that when the extremity of a nerve is stimulated the whole nerve and the portion of the brain with which it is in continuity enter into the impressed or active condition, which condition is not conducted from one part to another of the tract, leaving one region as it affects another, but, at all events, for a time, exists simultaneously throughout, and that the consciousness extends from its special state, so far as there is continuity of the impressed condition.

He goes on to say:

"Let it be distinctly understood that I do not say that consciousness resides in the nerve extremities, but only that when the nerves are in the active or impressed condition in their whole extent up to the brain, the consciousness is affected directly by the irritation applied to their extremities. The relation, then, of consciousness to the brain remains totally different from its relation to the nerve. The impressed condition of the cerebral corpuscles produces only excitement of the mind; the impressed condition of a peripheral nerve or its extremity continued up to the brain brings the consciousness into communication with the irritation applied."

The explanation of Form which BERNSTEIN gives would not satisfy the Scotch physiologist.

He is not willing to grant that any blind secondary forces can so direct and modify each other as to evolve definite and predetermined shapes. There must be something back of them, some directive intelligence.

In his chapter on the Evolution of Organization, it is contended that evolutions are definite; that "there is morphological design, and when in any line of development the design is completed the evolution ceases, although by the operation of environment or external circumstances variations may continue to occur, and degenerations of diverse kinds may take place. Such views demand for the universe a background or underlying element of spirit."

Probably, were a unity of opinion as to the meaning of this word *spirit* reached, the two writers might be found to agree after all. There is no necessity in assuming that Energy is and must be unintelligent. What is Intelligence itself but Energy?

THE CAUSES OF SUDDEN DEATH IN DISEASE.

The ordinary course of a disease, acute or chronic, is sometimes put a stop to by the immediate, sudden death of the patient, in a manner as unexpected to the physician as it is disagreeable to him. Such cases are pretty sure to be quoted against his skill and foresight, and it is well for him to have ready the explanations which accurate studies of these cases have suggested as likely to explain them.

Some observations on such accidents were published in the *Birmingham Medical Review*, about a year ago, by Dr. W. HUNT. He ascertained that a very common cause was degeneration of the parietes of the heart associated with cardiac dilatation. There is the feeble cardiac impulse, the irregular and intermittent pulse, etc., indicative of the impaired muscular power of the heart, till on some sudden demand, perhaps, on its strength, "it ceases in diastole, and the patient is dead." Our obvious duty in such a case is to guard against any sudden exertion. So, in dilatation of the heart, where the probable compensating hypertrophy is neutralized by further dilatation—the result of a secondary de-

generation in common with the other tissues of the body. A similarly dangerous degeneration of the cardiac walls occurs in certain fevers, especially in diphtheria. LENKER has described two forms—a granular and a fatty. It is also met with in some non febrile diseases, as delirium tremens, acute mania, tetanus, etc.

Again, the heart may fail when it acts, so to speak, at a disadvantage, as in pericardial and pleuritic effusion. Valvular disease, particularly if it leads to aortic regurgitation, may paralyze the heart by over distention, when it will stop in diastole.

Another mode of cardiac death is that from *anæmia*. Here the heart stops in systole, and is found firmly contracted after death. There may be no blood for the heart to propel, as in the rupture of an aneurism, or it may be drawn away from the heart, as occasionally happens in paracentesis of the peritoneum for large effusions, when the removal of the pressure leads to a sudden rush of blood to the part.

In other diseases there is a liability to sudden death from *asphyxia*. *Hæmoptysis*, spasm of the glottis, etc., may produce death in this way. In embolism and thrombosis of the pulmonary artery, the *asphyxia* or *apnœa* is caused by an obstruction to the entrance of blood into the lungs, not, as in the former cases, from obstruction to the entrance of air. Really, sudden death due to affections of the nervous system is rare. It is usually owing to a large amount of hemorrhage in some important part of the brain, as the *pons* or *medulla*.

Interstitial nephritis is a disease liable to be interrupted by sudden death without decided pathological lesions. Some cases were recorded last year in *La France Médicale*, by Drs. DEBOL and CAPITAN, going to show that the cause was fatal *syncope*.

Both of the sufferers had been in good health up to the time of death, which was not preceded by any morbid phenomena. A third patient had been subject to attacks of suffocation, in one of which he died. There was no trace of valvular lesion in any of these three cases, but the cardiac muscles prevented sclerotic altera-

tions. In discussing the paper, M. LANDOUZY stated that he had made a necropsy a few days before, on a woman who had died suddenly. The brain was normal, but he found considerable hypertrophy of the left ventricle of the heart, and signs of advanced interstitial nephritis. M. DUJARDIN BEAUMETZ drew attention to the fact that medical literature contains a number of cases of very rapid deaths of persons affected with interstitial nephritis, after the hypodermic injection of even very small doses of opium.

Dr. J. PARISE has lately attempted to show that one of the causes of death in cases of moist gangrene is the entrance of putrid gas into the veins, and its rapid passage towards the heart. To support his proposition, he has placed on record two cases of sudden deaths during gangrene of the leg, in which, very shortly after death—an hour and a half and two hours respectively—gas was found in the large venous trunk and in the heart. There is not here any decisive proof that this gas was present before death; but from the great development of gas which is known to take place in the soft tissues in a state of moist gangrene, there is some probability that this is so, and then, if in sufficient quantity, it might in reaching the heart cause sudden death, like air drawn into veins during operations close to the heart. PARISE maintains, that it is thus, and not by any special toxic effect of the gas, whose nature he does not record, that death is produced.

NOTES AND COMMENTS.

Urticaria Produced by the Use of Tinct. Pimpinellæ.

Dr. C. Kaufmann, of Frankfurt am Main, relates a case of which a brief account is given in *Allgemeine Medicinische Central-Zeitung*, February 26th, 1881, in which he ordered twenty drops of tinct. pimpinellæ every three hours, in sweetened water, for the relief of a slight angina. The patient, a girl of sixteen, complained the following day that she had been unable to sleep all through the night, on account of an uncomfortable burning and itching of the skin, and also stated that there was an eruption. Upon examination it was found that the arms, hands, chest, back and ab-

domen were covered with a rash, while the lower extremities were entirely free. There was no general disturbance and the urticaria disappeared by evening, upon the withdrawal of the medicine and dusting the parts with starch powder. Two days later the medicine was again administered, with the same result as before.

The Life of Plants.

In his late work on *The Power of Movement in Plants*, Mr. Darwin observes, it is impossible not to be struck with the resemblance between the sleep movements of plants and many of the actions performed unconsciously by the lower animals. With plants an extraordinarily small stimulus suffices; and even with allied plants one may be highly sensitive to the slightest continued pressure, and another highly sensitive to a slight momentary touch. But the most striking resemblance is the localization of their sensitiveness and the transmission of an influence from the excited part to another, which consequently moves. Yet plants do not, of course, possess nerves or a central nervous system; and we may infer that with animals such structures serve only for the more perfect transmission of impressions, and for the more complete intercommunication of the several parts.

Tattoo Marks as Anatomical Guides.

A Paris letter gives this item:—

Henceforth, be it understood, the dermatographic artists will be looked upon as valuable auxiliaries to surgery.

"Why is it," asks Dr. le Comte, who is physician to a regiment of dragoons, "Why is it that such quantities of soldiers die upon the battle field?" And then he replies, confidently: "Simply because of the difficulty which arises in regard to arresting hemorrhages."

The compression of an artery being the best mode of stopping profuse bleeding, Dr. le Comte proposes to teach each soldier first where these vessels are situated, so that he may assist himself while waiting for the surgeon. Therefore, he tattoos an image of some kind upon every portion of the soldier's body where there is an artery.

Injurious Effects of Smoking.

Among other charges brought against the weed should be mentioned one by Dr. Edward Woakes, in an article on goitre, in the *Lancet*. He observes:—

There can, I think, be no doubt about this fact, that goitre prevails in a mild form among all

classes, to a largely increased degree over that which has hitherto obtained. The same may be said of other diseases of a vaso-motor origin, presided over by the sympathetic centres of the cervical region, among which I may mention diphtheria, and laryngeal and nasal affections generally. I am bound to confess it, though I do so with reluctance, as the result of long study of the physiological effects of tobacco, that smoking is largely responsible for this result. Its effects are constantly manifested in the smoker himself, in the form of weakened inhibitory force in the centres primarily influenced by the drug; and, secondarily, the offspring of great smokers exhibit a like impairment of the same centres. Probably, the most inordinate smokers are young men, prior to marriage.

Elongation of Nerves in Tetanus.

At a recent meeting of the Soc. de Biologie, of Paris (Feb. 26th), M. Poncet presented an observation of a case of tetanus, terminating in death, notwithstanding the administration of twelve grams of chloral per diem. No neuritis of the collateral nerves of the injured thumb or of the median nerve of that arm could be found by M. Poncet or M. Mathias Duval, and they were unable to find any trace of the bulbar degeneration noted by M. Amidon in such cases. Elongation of the nerve, successful in a few cases, is generally without avail, and in a case of Clark's, which terminated happily, the tetanic symptoms persisted after the operation. In two cases of Eben Watson's, in a case of Hutchinson's, and another reported by Morris, the elongation was unsuccessful, and this last author considers it dangerous, as augmenting the frequency and violence of the spasms. The recent experiments of Laborde have demonstrated that elongation arrests the sensitive, but not the motor, current in the elongated nerve.

The Synthesis of Quinine.

Hardly any discovery in chemistry would yield grander pecuniary results than an economical formula for the synthesis of morphia or of quinine. About two million dollars' worth of cinchona bark is imported annually, and of the enormous consumption of morphia we have recently spoken. If the exact composition of the cinchona alkaloids was known a great step would be gained. There is a rumor that a process has actually been perfected to manufacture quinine from coal tar, which is theoretically possible enough, but probably not yet an actual fact.

SPECIAL REPORTS.

NO. X.—GONORRHOEA.

Various efforts have been made to discover the supposed specific germs which impart its virulence to the discharge from gonorrhoeal surfaces. In 1879, Dr. ALBERT NEISSER, and last year Drs. A. BOKAI and A. FINKELSTEIN, reported a number of observations of a peculiar micrococcus found in gonorrhoeal pus, whether taken from the urethra or the eye. An abstract of these researches may be found in Schmidt's *Jahrbuch*, January, 1881. Experiments in cultivating these organic forms, and subsequently transplanting them to mucous membranes, seemed to show that they had the power of originating or conveying the disease. Of course, in these, as in all similar experiments, not only are there various liabilities to error of observation present, but even if all these are excluded there remains the uncertainty whether the organic form, the micrococcus itself, is the active agent, or whether it is not, after all, merely the carrier, the means of transportation of a poison in itself strictly chemical and inorganic.

Gonorrhoeal Rheumatism.

This obstinate and not infrequent complication should not be mistaken for any other form of rheumatic complaint. There are, perhaps, a few distinguishing points which enable an accurate diagnosis. We may compare two recent portraits of the disease, to illustrate this. One is by Dr. CAMERON, in the *Glasgow Medical Journal*, February, 1881. He writes—

Gonorrhoeal rheumatism is most frequent and obstinate in the knees and the smaller joints of the extremities. The accompanying fever is not usually great, while chills are seldom complained of. The pain is often extreme, and effusion takes place rapidly, and sometimes, especially in the knees, in great quantity. In certain cases, the subcutaneous bursae and the bursal sheaths of tendons are the seats of effusion, as well as the joints. Treatment produces little or no effect; the disease, when severe, is always very chronic, and marked throughout by a disposition to occasional amendments, followed by disappointing relapses. It is not surely assuming too much to say that the articular affection is probably excited by the absorption into the system of some form of septic poison.

The second portraiture is from Prof. WM. HENRY DRAPER, of New York, given in a lecture reported in the *Detroit Lancet*, Feb., 1881:—

This disease is accompanied with moderate fever. The fever, as a rule, does not run nearly as high as it does in acute inflammatory rheumatism. It has not the same tendency to acuteness of symptoms in any respect. There is great

tenderness and great pain on any attempt to move the joints, and the joints may present exactly the same appearance which you find in ordinary acute inflammatory rheumatism, though, as a rule, I think there is not the same tendency in gonorrhoeal rheumatism to synovial distention. The disease appears to be confined to the fibrous structures around the joint, and not, in the majority of cases, to present such an intense degree of synovial distention.

The disease, from what I have said of its general characteristics, is a subacute disease; it is a subacute rheumatism, and I do not know how we would distinguish it from an ordinary case of subacute rheumatism which was not associated with gonorrhoea. It has one peculiarity which I would advise you to fix very strongly in your minds, for it will certainly be fixed there when you come to have any experience with the disease, and that is its chronicity. It is the most obstinate, the most rebellious to treatment of all of the forms of rheumatism; the most discouraging. You know that we do not hesitate, now a-days, to make a pretty favorable prognosis of rapid cure in a case of acute articular rheumatism. The success which is met with with the alkaline treatment, and especially with the salicylic acid treatment, leads us to anticipate, in the great majority of cases of ordinary acute rheumatism, a very good result within a week or ten days from the time the treatment is adopted. But I regret to say that neither alkalies nor salicylic acid, nor iodide of potassium, nor colchicum, nor actea, nor any of the remedies that have been used in the treatment of rheumatism seem to have any effect upon this most rebellious form of rheumatism. There is one thing that does cure it, and that is time. If there is any truth in the old adage, that six weeks will cure rheumatism, it is very frequently illustrated in this form of disease, for it will get well as time progresses. And there are a great many remedies, I suppose, that have got the credit of curing the disease, provided they have had the good fortune to be administered during the decline of the disease.

Occasionally abscesses and pyæmia may follow this variety of rheumatism. Dr. CAMERON, in the article above quoted, narrates two, one with a fatal termination.

In the first of these, occurring in a gentleman of middle age, recovery only took place after a long continued and most serious illness, accompanied by the formation of several large abscesses in thigh, testicle, and foot. In the second case a fatal result occurred. A young man was admitted a few years ago into my ward with retention of urine, caused by an acute gonorrhoea. The house surgeon relieved him by the use of the catheter. A few days afterwards he complained of "rheumatism" in several joints, and, under the belief that it was a case of gonorrhoeal rheumatism, he was received into one of the medical wards, under the care of Professor Charteris. The case developed into one of acute and rapidly fatal pyæmia. On post-mortem examination, numerous abscesses were found in the joints, in the sterno-mastoid muscle of one side, and in the lungs. The urethra was entirely

uninjured by the catheterism, and showed no lesion except the urethritis.

Three cases are reported by Dr. E. FINGER, (*Wiener Med. Presse*, 48, 1880), where *purpura rheumatica* was associated with gonorrhœal cases presenting rheumatic symptoms. The connection of the pathological processes was quite clearly made out.

Cardiac Complications of Acute Gonorrhœa.

The complication of gonorrhœal endocarditis is rare. In 1878 (*Deutsche Zeitschrift für Prak. Med.*, No. 50) a collection of seventeen reliable cases, from French sources, was made by Dr. PRUHL, who added one, fully detailed, to the number. This was a healthy young soldier, 28 years of age, who contracted gonorrhœa May 9, which was followed by gonorrhœal ophthalmia, rheumatism, cystitis, etc., and on June 15th by a continuous sound at the apex of the heart during systole, a feeling of fullness and oppression about the heart, and, on motion, palpitation and local pain.

Dr. CIANCIOSI records another case of this rare complication in *Bulletino delle Scienze Mediche*, September, 1880. The patient, whose family history was good, contracted a gonorrhœa, which was checked almost immediately by strong astringent injections. The disappearance of the discharge was, however, quickly followed by an undefined feeling of malaise, which became aggravated, and finally accompanied by intense cephalalgia and pyrexia. Auscultation showed at this period a systolic murmur, most distinctly heard at the apex. Respiration 28; temperature 39 Centigrade (102.2 Fahr.). The diagnosis of endocarditis was arrived at, of which no other explanation seemed possible than that it was dependent on the suppression of the gonorrhœal discharge. This shortly afterwards became re-established, and the patient eventually recovered. The author, in explaining the etiology of the attack, exhausts various hypotheses, but eventually adopts that suggested by Klebs in certain cases of rheumatism, viz., an actual emigration of micro-organisms. In this case such organisms found their way into the blood, whence they may have been deposited on the valves of the heart, or in its stroma, with the result of exciting interstitial inflammation, accompanied by the usual train of symptoms.

Pathology of Epididymitis.

Le Progrès Médical, January 29th, contains a report of a communication made to the Société de Chirurgie, by M. Terrillon, on the pathological anatomy of blenorrhagic epididymitis. His conclusions were drawn from a study of

eighteen reported cases from experiments on dogs. The important point that these researches develop is that the inflammation is principally in the cellular tissue around the epididymus, rather than in the tissue of that substance itself. A more exact name for the attack would be *peri-epididymitis*. The body of the organ is rarely involved, while the vaginal tunic is always inflamed and often contains liquid, the evacuation of which calms the pain of the disease in a notable manner. Resolution takes place from the periphery toward the centre, but the vas deferens remains for a long time lax and enlarged, and yielding a purulent discharge. M. Terrillon is also of the opinion that the testicular secretion is impaired in quality, and so continues for an indeterminate period.

Gonorrhœal Cystitis.

The *Allg. Wiener Med. Woch.*, No. 45, 1880, gives a discussion at the Vienna Medical Society, in the course of which, referring to the influence of chlorate of potash taken internally, Dr. MRAZEK stated that when he was clinical assistant in the department for syphilis he had administered the chlorate in cases of *cystitis* and *cysto-pyelitis* arising from gonorrhœa. Altogether there were forty hospital and thirty out-patients who took daily five grams, dissolved in 100 grams of water, with two drachms of cherry-laurel water added to it. Most of these persons took it for twelve to fourteen days, and several for a longer time, so that in most cases as many as sixty grams were taken. Acid reaction commenced in the urine from the second day, and the triple phosphate disappeared from the sediment, which became diminished in quantity and less viscid. The quantity of the urine remained the same, but the urgency for passing it was diminished. When it contained blood at the time the chlorate was given, the quantity of this was increased. No ill consequences resulted from the use of the chlorate, in spite of the fact that most of the patients were in a bad condition of health, and some of them the subjects of tubercle and syphilis. The chlorate must, therefore, be regarded as a valuable aid in treating this form of cystitis and cysto-pyelitis. Of the forty cases treated in hospital, twenty-eight completely recovered, and several others were much improved.

Retention of Urine in Gonorrhœa.

M. Mauriac, in a lecture at the Hôpital du Midi, Paris, recommends that in retention of urine, which is a grave and painful complication, when the stricture occurs gradually and is never complete, a calming and antiphlogistic

treatment is best adapted. For this purpose fifteen or twenty leeches should be applied to the perineum; the patient should also be ordered to remain in a lukewarm bath for one or two hours, and if this does not enable him to mic-turate, he should be given starch lotion containing a considerable quantity of morphia. Warm and very moist poultices may also be applied over the whole perineum. If these methods are unsuccessful, and if after their employment the retention still continues, recourse should be had, without hesitation, to the catheter.

In the most favorable cases a single evacuation of the bladder by means of the bougie is sufficient to effect a cure. But it is generally necessary to pass this instrument three or four days in succession. In no case should the urine be left until it again distends the bladder and dulls its power of contraction. In fine, then, since the patient cannot void his urine as he could if he were in health, and as he will only imperfectly empty his bladder, he ought to be assisted with the catheter. Baths and soothing applications should also be adopted.

(To be continued.)

CORRESPONDENCE.

Operations on the Extremities.

ED. MED. AND SURG. REPORTER:—

I beg leave to report the following operations, which, I trust, will interest some of your many intelligent readers:—

The first one was on Emma K., aged 11 years. During the month of August, 1878, I was requested to examine her. I found her sitting on a chair, with her right limb very much adducted, the left thigh resting on top of the right. She was unable to walk. The pelvis was elevated on the right side. The body presented a peculiarly bent position, somewhat leaning to the left. The patient was very much emaciated, her appearance betraying that peculiar haggard condition generally resulting from long continued suffering.

I discovered four sinuses in the left heel, one on each side, near the external and internal malleoli, and two further back. After a careful examination I concluded that it was a case of coxalgia of the right hip, and necrosis of the os calcis, with a probable involvement of the astragalus of the left foot.

On September 10th, 1878, assisted by Drs. Spotts, Detweiler and Bowman, I operated, and, following the method of Erichsen, so highly admired by the eminent Professor of Surgery in Jefferson College, Dr. S. D. Gross, I made a horseshoe incision, beginning in front of the calcaneo-cuboid articulation, around the heel, along the sides of the foot, to a corresponding point on the opposite side. I dissected up the flap thus formed, carefully carrying the knife close to the

bone, the entire inferior surface of which was thus exposed. I then made a perpendicular incision of 1½ inches in length, over the tendo-Achillis, into the horizontal one, and dissected up the two lateral flaps. The os calcis and astragalus both were so much involved that their removal was absolutely necessary, including the external and internal malleoli. The knife, gouge and pliers were the only instruments used.

No arteries having been severed by the operation, the loss of blood occasioned no trouble. The wound was sewed up, a felt splint applied, and drainage was easily effected. The wound was thoroughly cleansed every alternate day, with a solution of permanganate of potash or tincture of calendula, two drachms to one pint of water.

Six weeks after the operation the patient was removed to her home, twelve miles from Reading. The motion of the joint is normal, and the patient able to walk on the foot. After the foot was healed I applied a Day's splint for fracture of the femur, to the right side of the body, from the axilla down, being particularly careful to have it well padded over the hip. To the foot board I attached a strong strip of muslin, which extended across to the foot, where it was carefully fastened. Thus, by lengthening the splint by means of the screw, an extension and counter extension effect was produced, and the limb very much abducted. By these means I finally succeeded in getting the limb in a much straighter line with the body. By applying the weights I succeeded in straightening the limb. Subsequently several sinuses formed below the great trochanter, from which I removed some small spicula of bone, after which the sinuses healed. The patient is enabled to walk from eight to ten squares at a time, by the aid of a cane.

The second patient was Malinda U., aged fifteen and a half years, and weighing fifty-four pounds.

On examination, in February, 1879, I discovered that this patient suffered in the left knee and femur. The leg was completely flexed upon the thigh, standing nearly at a right angle with the thigh. In flexion and extension it would admit of only two inches of motion at the foot. I found two cicatrices, one over the region of the external and the other over the region of the internal condyle of the femur, where formerly there were openings from which a thin watery matter oozed out continually for a long time, which finally ceased, and the openings healed spontaneously. One opening or cloaca remained, however, in the popliteal space, from which a thin, almost transparent, pus flowed incessantly. On inserting a probe I readily discovered a sequestra, and after a thorough examination, I felt convinced that it was necrosis of the femur, and that the patella having been drawn backward by its ligamentous attachment with the tibia during flexion of the leg on the thigh, united in that position with the femur, thus preventing extension of the leg.

On April 5th, 1879, assisted by Drs. Spotts, Detweiler, Bowman, and Y. S. Ammon, I performed the following operation: I made a semi-circular incision, beginning at the outer side of the thigh, about three and a half inches above the

knee joint, and extended it downward and transversely across the tibia, a short distance below the patella to the inner side of the limb, then upward to a point corresponding with the beginning of my incision on the outside of the thigh. Then, dissecting up the flap, I found the patella firmly united to the femur, and extending backward to the front of the head of the tibia. A part of the condyles, including the patella, was sawed off. The articular cartilage of the tibia was removed, and the femur trephined three inches above its extremity where it was sawed off. This, with a longitudinal piece of bone removed, opened access to the inside of the bone, from which a sequestra, 2½ inches in length, and several smaller pieces, were removed. The wound was carefully dressed and placed in an instrument somewhat resembling that of Dr. Price's for excision of the knee-joint. The wound is healed, the femur and tibia have united, and the limb is almost straight, care having been taken not to straighten it entirely.

This patient has since learned a trade, and is now, against my advice, living with her parents, on a farm of 150 acres, where she has been obliged, within the last six months, to hand all the grain raised on that farm in 1880 to the feeder of the threshing machine, to husk corn, milk cows, and perform other hard labor.

Before the operation she had never menstruated, but is regular now. Her general health is very good, and her present weight eighty pounds.

In the after treatment of these cases aconite, veratrum viride, arnica, and a combination of lime, iron and cod-liver oil were prescribed.

Reading, Pa.

A. C. DETWEILER, M.D.

Treatment of Pneumonia.

ED. MED. AND SURG. REPORTER:—

A recent article, "Treatment of Pneumonia," W. C. Wile, M.D., (MEDICAL AND SURGICAL REPORTER, March 26th, current volume, pages 360 and 361) has induced me to write and to offer an expostulation against not only an indiscriminate use of the lancet in the treatment of said disease, but also against this thing of blindly following the teachings of a friend or favorite, even against the teachings of the leading minds of our day. Now, Dr. Wile, because Dr. Corson gave such valuable advice concerning ice in the treatment of the eruptive diseases, measles and scarlatina, and also advocates bleeding in pneumonia, does not stop to consider whether bleeding is indicated or not, but plunges the lancet into the arms, or elsewhere, of all persons afflicted with a certain lung trouble that he (Dr. Wile) pronounces to be pneumonia. He cites five cases, three of which were under thirty years of age, one seventy-three, and the other eighty-two years of age. His cases of pneumonia, before Dr. Corson's articles were published, were very fatal, indeed, so much so, that he had a dread of treating it. Now he had Corson's articles to draw from, and of the five cases mentioned, two were in their shops at work in one week, while with the other three the disease "ran a mild course and made a rapid recovery." Do these writers put themselves on record as advocating such a procedure without

thinking of what the result may be among a certain class of beginners who must have others think, to a greater or less extent, for them? Are the finger posts our fathers erected for our guidance lost, or do we not yet possess a sufficient number to conduct us safely through? Must we neglect entirely the exhausted condition of a certain class of our patients, and bleed them anyhow? God forbid, for if we do I certainly feel that we will cut short the disease, but we will also cut short life with it. When bleeding is indicated, what practitioner will refuse to resort to the lancet? When it is unsafe, would it not be better to never touch one, than to endanger life by using it too freely? Because opium will relieve pain, must we give it to every patient suffering from pain, whether there is an idiosyncrasy or not? Because quinine is our sheet anchor in malaria, must we resort to it in twenty grain doses in every case of malarial fever we may encounter? Dr. Corson claims too much, and by sowing the seeds he is sowing, endangers lives he does not dream of. Because he, an old hand at the helm, can guide the boat safely over the treacherous breakers of disease by resorting to a practice great minds pronounce dangerous, is it a reason for him to teach inexperienced young doctors, all over these broad States, to bleed old and young, weak and strong, indiscriminately, whenever said doctor may imagine a patient has pneumonitis?

With all due deference to the age and experience of Doctor Corson, and with a kindly feeling to Doctor Wile, I must, nevertheless, enter my weak protest against the revival of a practice at once dangerous and hurtful in all its tendencies.

I could quote authors of the age of blood letting, who invariably advised care in certain cases, but I will not lengthen what I have written by doing so.

J. E. STINSON, M.D.

Montague, Texas.

Salicylate of Sodium in Rheumatism.

ED. MED. AND SURG. REPORTER:—

I was called, March 26th, to see a little girl of Mr. C.'s. Found her suffering from an attack of acute rheumatism; the suffering was very severe, the weight of the bed clothes causing severe pain. I put her on large doses of potass. bicarb., with Dover's powder, to ease pain. The next morning I found her no better; changed treatment to—

R. Salicylate of sodium, ʒss
Glycerine,
Water, aa ʒij. M.

Dose, one teaspoonful every two hours until three doses are taken, then only one-half the amount.

I called the next morning and found her entirely easy and sitting up in bed; the mother claimed that all pain was gone after the second dose. Within three days after the time this treatment was commenced, she was around the house, and still remains well. J. D. APPELY, M.D.

Susquehanna Depot, Pa.

In this connection we may mention salicylate of cinchonidia as proving equally valuable in rheumatism and neuralgia.—ED.

NEWS AND MISCELLANY.

Opening Exercises of the Medico-Chirurgical College.

The opening exercises of the Medico-Chirurgical College took place at noon, April 4th, 1881, at the rooms of the College, S. W. Corner Broad and Market streets.

At the appointed hour the exercises were commenced with prayer by Rev. C. F. Turner, after which the President of the College, Prof. George P. Oliver, M.D., delivered the opening address, explaining the aims and purposes of the College. This was followed by addresses from Rev. P. S. Henson and Rev. C. F. Turner, both of whom expressed much interest in the future welfare and success of the College.

We make the following extracts from the President's address, as indicative of the spirit and plan of the new association:—

LADIES AND GENTLEMEN:— * * * *

To establish a medical college in Philadelphia that will be an honor to our profession, and will be able to compete with that grand old monument of human genius, my own time honored alma-mater, the University of Pennsylvania, or that shall successfully vie with her prosperous rival, the Jefferson College of Philadelphia, is a work of no ordinary character, and should be enough honor for any Faculty to achieve during an entire lifetime. We wish the City of Brotherly Love to continue to be the great centre and metropolis of medical teaching in the United States, and while we wish success to still attend the two great colleges already flourishing here, and hope that even greater triumphs will be accomplished by them, yet to day we present another college for public favor, which we trust will not be devoid of attracting powers, but will prove to be a blessing to all who may ever enter within her walls. * * * *

How much longer shall we hear of eminent Professors allowing themselves to become even *passive* agents in lowering the standard of medical education, by admitting students to their colleges who have never read an hour with a medical preceptor, and who are not gifted by nature, or fitted by education, to grasp and hold on to the necessary amount of knowledge that is requisite to make them successful practitioners of medicine. It is a sad misfortune, that hundreds of young men who attend a few lectures receive a diploma, and thereby get a license to play the role of a physician, and make an attempt to perform the responsible duties of a Doctor of Medicine, even before they have acquired a knowledge of such elementary requirements of the profession as would be necessary to secure their admission into the junior class of any respectable college of medicine. The consequence is that only about twenty out of every hundred who procure diplomas continue in the practice of medicine, and a far less number ever attain to any great eminence in the profession. Knowing these facts, it seems strange that respectable and well-meaning physicians, who are not connected with colleges, do not see to it, and discourage young men, when they know they have neither education nor aptitude to overcome the difficulties attending the

acquisition of that comprehensive instruction so essential to insure success in the varied and onerous duties devolving on a physician. It is the intention of the Faculty to use every means that can be made available to advance students and to render them proficient in the duties of their profession. We deprecate the system of cramming now in use in many medical colleges in various parts of the country; crowding into two winter sessions the entire medical tuition of the student. Owing to the shortness of time, sufficient instruction cannot be given, and the student fails to complete his medical education properly. With a view of elevating the standard of medical education, our college has adopted a curriculum embracing a full three years' graded course. By this action we believe we will assist in placing some safeguards around society that are being sadly neglected by many medical colleges in America. No pupil will receive the honor of the Doctorate from the Medico-Chirurgical College unless he has been faithful in his attendance to the lectures, and has fully qualified himself for the degree by having acquired a knowledge of the essentials of the seven fundamental branches of medicine. * * * *

The mystifying influences which have surrounded the domain of medicine, and retarded its progress for centuries, are swiftly passing away, and now, under the use of the *anæsthetic*, the *knife* and the *microscope*, our profession is no longer to be regarded as a mere *art*, but by the accumulation of its thousands of truths, it is rapidly crystallizing into a *science*. Still, medicine has not yet developed all the embryonic treasures that lie hidden in the womb of time which need but the ready hand of persevering industry to bring them into life and usefulness. Shall we who live in this enlightened age forget our mission in life, and in the hurry and bustle of an aimless career, allow these golden opportunities to be taken hold of by men who are gifted with no greater mental powers, nor blessed with any more favorable circumstances than we are? Shall we stand idly by and see these men using the most diligent research, and exhibiting the most enduring energy, and thereby achieving lasting victories, which, with the same amount of exertion on our part, would have placed our names on the same roll of honor, and would have given us the same meed of praise, as is now so justly bestowed upon them?

To both old and young in our profession, who are resting satisfied with the laurels already gained in former days, we desire to say, fall in line and march to the front, assist your brethren to break down the formidable barricades that have been erected by unscrupulous men, who have almost run their course, but who are still attempting to control the destiny of our profession. To our friends who have honored us with their presence to-day, we tender the thanks of grateful hearts. We feel that our success will not depend upon ourselves alone; much will be due to the encouragement we may receive from those who are in full sympathy with us. Give our College and our sister colleges who are engaged in this noble work your aid and counsel, and the great object will, in a short time, be effected. We know we will have a severe strug-

gle, at first, but we are determined to hold on, even though we have to fight the battle alone. Other colleges may falter, as one in New York already has, but with the full assurance that we are doing right, we intend, with the assistance of Divine Providence, to persevere manfully, until victory shall crown our efforts.

"Let us then be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait."

The Pennsylvania State Medical Act.

We have been requested to publish the full text of the Act recently brought before the Legislature for the regulation of practice in this State. Although our columns are considerably crowded with other matters, we believe the text of the Act will be read with interest, both by many in and out of the State.

AN ACT to regulate the practice of medicine, to establish a State Board of Health, and to make an appropriation therefor.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same.* That the Governor, by and with the advice and consent of the Senate, shall appoint six persons, who, with the Secretary, shall constitute the State Board of Health. The persons so appointed shall hold office for six years, provided that the terms of office of the six first appointed shall be so arranged that the terms of two members shall expire in two years, the terms of two shall expire in four years, and the terms of two shall expire in six years. And the vacancies so created, as well as all other vacancies occurring otherwise, shall be filled by the Governor, by and with the advice and consent of the Senate; and provided, also, that appointments made when the Senate is not in session may be confirmed at its next ensuing session.

SEC. 2. The State Board of Health shall have the general supervision of the interests of health and life of the citizens of the Commonwealth; it shall have authority to make such sanitary investigations as it may, from time to time, deem necessary in improving the public health; it shall pass upon the competency of practitioners of medicine; it shall have the general supervision of the collection of the vital statistics of the Commonwealth; it shall, at the session of the General Assembly next following its creation, report for legislative action a code of sanitary laws; it shall prepare an annual report of its operations, which shall be submitted to the Governor; it shall diffuse a knowledge of the means of obtaining individual and public health, and of preventing disease.

SEC. 3. The first meeting of the Board shall be held within fifteen days after its appointment, and thereafter in January and June of each year, and at such other times as the Board shall deem expedient. The meeting in January in each year shall be in Harrisburg. A majority shall constitute a quorum. The Board shall elect a Secretary, who, by virtue of such election, shall

be a member of the Board and its executive officer. The members shall choose one of their number to be President, and they may adopt rules and by-laws for their government, subject to the provisions of this Act.

SEC. 4. No member of the Board, the Secretary excepted, shall receive compensation, but all proper and necessary expenses of members, while engaged in the service of the Board, shall be paid by the State upon the presentation of an itemized account, with vouchers annexed. The Secretary shall receive an annual salary of three thousand dollars, which shall be paid in the same manner as salaries of other State officers are paid. Said Board may, from time to time, engage suitable persons to render sanitary service, and to make or supervise practical or scientific investigations, and examinations requiring expert skill, and to prepare plans and reports relative thereto; but such special sanitary service shall not cost more than three thousand dollars in any one year. The total expenditures of the Board shall not exceed the sum of eight thousand dollars in any one year.

SEC. 5. The sum of sixteen thousand dollars is hereby appropriated from the State Treasury for the purposes of this Act. The expenditures properly incurred by the authority of said Board, and verified by affidavit, shall be paid by the Treasurer, upon the warrant of the Auditor General.

SEC. 6. The standard qualifications of a practitioner of medicine, surgery, or obstetrics in this Commonwealth shall be and consist of the following, namely:—

A good moral character.

A thorough elementary education.

Three years' study of medicine in its various branches, under a competent preceptor.

Attendance upon two full courses of lectures in a legally chartered medical school.

A satisfactory examination, before or on graduation, in human anatomy, human physiology, pathology, chemistry, materia medica, obstetrics, practice of medicine, surgery and public hygiene.

A diploma received in regular manner from a chartered medical school duly authorized by law to confer upon its alumni the degree of Doctor of Medicine, and

A license granted as hereinafter set forth.

Every applicant for such license shall furnish to the State Board of Health satisfactory proof that he is possessed of the qualifications enumerated in this section. He shall deposit a copy of his diploma in the office of the Court of Common Pleas of the County in which he may sojourn or reside, said copy to be a matter of record and open to public inspection: *Provided*, that any resident practitioner of medicine, surgery, or obstetrics, who had been in continuous practice in this Commonwealth for a period of not less than five years prior to the passage of the Act of Assembly entitled "An Act to protect the people of the Commonwealth against incompetent practitioners of medicine, surgery, or obstetrics," approved the twenty-fourth day of March, A. D. 1877, shall file in the office of the Court of Common Pleas of the County where such person intends practicing, his affidavit setting forth the time of continuous practice, and the place or

places where such practice was pursued in this Commonwealth. Said affidavit shall, if found by the State Board of Health to be correct and true, be deemed sufficient evidence of qualification to practice medicine, surgery, or obstetrics, and said Board shall issue the license hereinafter provided for.

SEC. 7.—The State Board of Health shall examine every diploma or affidavit of competency recorded and filed in the offices of the said Courts of the various counties; and said Board shall be the judge of the genuineness of said diploma, and of the truth of said affidavit of competency. If said diploma or affidavit of competency be found genuine and true, and if the person therein named be the person applying for a license to practice medicine, the State Board of Health shall issue such license, which shall be conclusive evidence of the right of the lawful holder of the same to practice medicine in this Commonwealth. In addition to the persons already mentioned as entitled to such license, any person who shall submit himself to such examination as the said Board may require, and who shall pass an examination satisfactory to the Examiners, under such restrictions and regulations as the Board may prescribe, shall receive a license from said Board of Health to practice medicine, surgery, or obstetrics, and shall be entitled to all the rights and privileges herein mentioned. The officers of said Board shall have authority to administer oaths and to take testimony in all matters relating to their duties. Said Board shall furnish to the Prothonotaries of the several counties a list of all persons receiving its license. Said Board shall have power to refuse or revoke its license for just and proper cause.

SEC. 8. It shall be unlawful, on and after the first day of January, A. D. 1882, for any person not qualified and licensed by the State Board of Health, according to the sixth and seventh sections of this Act, to practice medicine, surgery, or obstetrics, or to collect any fees for medical, surgical, or obstetrical services.

SEC. 9. Candidates for examination by the State Board of Health shall pay a fee of five dollars, which shall be returned to them if licenses be refused. Examinations may be made, in whole or in part, in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 10.—Any person shall be regarded as practicing medicine within the meaning of this Act who shall profess publicly to be a physician, or to prescribe for the sick, or who shall append to his name the letters "M. D.;" but nothing in this Act shall be construed to prohibit gratuitous services in cases of sudden emergency. And this Act shall not apply to commissioned surgeons of the United States army and navy.

SEC. 11.—Any itinerant who shall sell any drug, nostrum, ointment, or agency of any kind, intended for the treatment of disease or ailment, or who shall, by writing or printing, or by any other method, publicly profess to cure or treat disease, injury, or bodily ailment whatsoever, shall pay a license of one hundred dollars a month, to

be collected in the way now prescribed by law for peddlers.

SEC. 12. It shall be the duty of practitioners of midwifery in this Commonwealth to register their names and post-office address in the office of the Court of Common Pleas of the county where they reside; and said practitioners of midwifery shall be required, under penalty of ten dollars, to be recovered in any Court of competent jurisdiction in the Commonwealth, to report to the Prothonotary of said county, within thirty days of their occurrence, all births and deaths which may come under their supervision, with a certificate of the cause of death and such correlative facts as the Board may require.

SEC. 13. It shall be the duty of all health officers and Boards of Health in the State, all officers of the State, the physicians of all incorporated companies, or the president or agent of any company or institution chartered, organized, or transacting business under the laws of this Commonwealth, so far as is practicable, to forward to the State Board of Health any information bearing upon public health which may be requested by said Board.

SEC. 14. Any person who shall offer for record a copy of any diploma to practice medicine which shall have been issued to any other person, or shall offer for record a diploma or affidavit of competency issued or obtained fraudulently, or in violation of the laws of this Commonwealth, or in violation of the charter of the institution conferring said diploma, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than three hundred dollars nor more than five hundred dollars, or imprisonment, at hard labor, for not less than one nor more than three years, or both, at the discretion of the Court, and his license shall thereby be revoked. And any person who shall in any other respect violate or fail to comply with the provisions of this Act shall be deemed guilty of a misdemeanor, and on conviction, before any court of competent jurisdiction, shall be sentenced to pay a fine of not less than two hundred dollars nor more than four hundred dollars for each and every offence, for the use of the county wherein such misdemeanor is committed, and his license shall thereby be revoked.

SEC. 15. All Acts or parts of Acts inconsistent herewith, be, and the same are, hereby repealed.

On Vaccination.

In consequence of the aggressive conduct of the Belgian Anti-Vaccination League, the Belgian Academy of Medicine appointed, last December, a committee of three members, for the purpose of undertaking an exhaustive examination of the whole subject, and of the arguments of the objectors. At the end of January, M. Warlomont, Director of the State Vaccination Institute, read an elaborate report, in which he submitted to the Academy the following propositions: 1. Without vaccination, hygienic measures and means, whether public or private, are powerless in preserving mankind from the small-pox. 2. The belief in the danger of vaccinating

and revaccinating during the presence of a variculous epidemic is not justified. We can no more cultivate variola by sowing vaccinia, than we can barley by sowing wheat. 3. Vaccination is always an inoffensive operation when practiced with proper care on healthy subjects. It gives rise to fewer and less serious accidents than simple piercing of the ears. 4. It is highly desirable, in the interest of the health and lives of our countrymen, that vaccination and revaccination should be rendered compulsory.

An Astounding Argument.

An extraordinary argument was used by Mr. Henry Bergh, President of the Society for the Prevention of Cruelty to Animals, in the course of an address against vivisection, which he delivered in Albany, in February. It was as follows:—

"As another proof of the profane extremes to which these dissectors of living animals will go, Robert McDonald, M.D., on being questioned, declared that he had opened the veins of a *dying person*, remember, and had injected the blood of an animal into them many times, and had met with brilliant success. In other words, this potentate had discovered the means of thwarting the decrees of Providence, where a person was dying, and snatching away from its Maker a soul which He had called away from earth!"

If anything can surpass this in absurdity, it would be pleasant to have it produced.

Influenza in Charleston, S. C.

Under date of March 21st, Dr. F. P. Porcher reports to the National Board of Health a form of *influenza* prevailing in and near Charleston. The symptoms are some fever, catarrh, almost constant cough, some pains in the limbs, but not so marked as in the dengue fever of last summer; there is usually headache, with redness of the tongue, and not unfrequently vomiting. The fever is sometimes high, but the prostration following is not very decided. The eruption of dengue is wanting, but in two cases swelling and suffusion of the face have been observed. The disease has extended to Columbia and elsewhere, and has affected a large number of persons, white and colored, throughout the lower portion of the State.

Daily Report of the American Medical Association

"A daily edition of the *Southern Clinic* will be issued during the meeting of the American Medical Association, in Richmond, Va.

This will be for gratuitous distribution, in honor of the occasion."

C. A. BRYCE.

The New German Pharmacopœia.

It has been decided by a respectable majority of the Committee on the Revision of the new Pharmacopœia for the German empire that the Latin language should be retained in its preparation. The reasons given are that it will thus be more useful to those not reading German, than there is greater accuracy in the Latin than the

German names, and that custom having sanctioned the Latin there is no good reason for abolishing it.

Items.

—At the meeting of the Academy of Sciences in Paris, on March 12th, the Boudet prize of 6000 francs (£240) was awarded to Professor Lister, for his application of M. Pasteur's researches to the improvement of the art of healing.

—A severe outbreak of trichinosis in a village near Beirut, Syria, during which several of the sufferers died, was traced to the flesh of a wild boar which had been eaten in an underdone condition by the villagers. A full account is given in the *Lancet*, March 19th.

—The American Laryngological Society will meet in Philadelphia during the second week in May. A full gathering of the members is expected, and the brethren of Philadelphia are preparing for them a cordial reception. Dr. J. Solis Cohen, of our city, is the President for 1881.

—A Paris medical exchange says: "In Havre, American pork is to be inspected, and if found free from trichinæ its sale will be allowed. As an offset to this wise regulation, the Cyprian sisterhood is to be relieved from police control, so that henceforward pig meat will need a government stamp to make it current, but frail flesh will be at liberty to spread syphilis. Is this change a gain?"

—The next annual meeting of the Medical Society of New Jersey will be held in the drawing-room of the Ocean Hotel, at Long Branch, on the fourth Tuesday of May, 1881, at half-past seven P.M. The hotel will be in readiness for the accommodation of about three hundred guests. Orders for commutation tickets over the Central Railroad may be procured from the Secretary.

WM. PIERSON, JR.,

Orange, April 26th, 1881.

Secretary.

MARRIAGES.

ALLISON—LINK.—In Burlington, Kansas, March 30th, by Rev. J. H. Halston, Dr. John M. Allison, formerly of Philadelphia, and Clara Link, both of Burlington.

BRUGLER—ANDERSON.—At Rose Lawn, Forest Grove, Bucks County, Pa., March 23d, by Rev. Jacob B. Krowson, De Witt Brugler, M.D., of Carversville, and Hannah, daughter of Lewis Anderson, of Centreville.

MARKELL—JUDD.—In New York, Wednesday, April 13th, by Rev. C. S. Robinson, D.D., Jacob Markell, and Emma B., only daughter of Walter L. Judd, Esq.

DEATHS.

AVERY.—At No. 165 East 40th street, New York, April 14th, Amos R. Avery, M.D., of Forestville, N. Y., aged 75 years.

COLLINS.—At the Grand Central Hotel, New York City, April 10th, 1881, Clarkson G. Collins, M.D., of Great Barrington, Mass., in the 61st year of his age.

HERZOG.—In New York, Tuesday night April 12th, after a brief illness, Dr. Max Herzog, in his 61st year.

TUCKER.—At Minneapolis, Minn., on Thursday morning, April 7th, 1881, of pneumonia, Mary Hali, wife of John C. Tucker, Jr., M.D.